# Symantec™ Advanced Manager for Security Gateways (Group 1), Symantec™ Event Manager for Security Gateways (Group 1)

## Administrator's Guide

Supported version: 2.0.1

# Symantec Advanced Manager for Security Gateways, Symantec Event Manager for Security Gateways Administrator's Guide

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March 10, 2004

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- Nontechnical presales questions
- Missing or defective CD-ROMs or manuals

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# Managing security gateways through SESA

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Chapter 1

# Introducing security gateway management through SESA

This chapter includes the following topics:

- Managing security gateways through SESA
- Security gateway products that integrate with SESA
- About this guide
- Where to find more information

# Managing security gateways through SESA

Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1 and Symantec Event Manager for Security Gateways (Group 1) v2.0.1 are integrated with the Symantec Enterprise Security Architecture (SESA) to provide a common framework to manage multiple Symantec enterprise security and third-party products from a single, centralized location.

The SESA framework consists of a set of scalable, extensible, and secure technologies that make integrated security products interoperable and manageable, regardless of the size and complexity of your network.

When managing security gateways locally, you configure and manage each security gateway from its local management console. The local console is accessed by pointing a supported Web browser to the security gateway's network-connected interface. For example, a host external to the security gateway would direct its management connection to the security gateway's external interface, whereas a host on the protected network would point the Web browser to the nearest inside interface of the security gateway.

In contrast, when managing security gateways through SESA, you can manage multiple security gateways from a single user interface, regardless of the network on which your SESA Manager resides. You can group them to reflect your organizational structure and create common configurations that are shared by security gateways that have the same security postures.

The event management capabilities of Symantec Event Manager for Security Gateways, installed with Symantec Advanced Manager, give you up-to-date information you need to make informed decisions about the security of your network and related devices.

# Security gateway products that integrate with SESA

Symantec offers two SESA-enabled products, described below, that let you manage your security gateways through SESA. Each provides a different level of SESA management for Symantec security gateways.

**Table 1-1** How Symantec security gateways integrate with SESA

| SESA integration Products | Supported security gateways |
|---|---|
| Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1 | For policy configuration:<br>■ Symantec Gateway Security 5400 Series v2.0<br>■ Symantec Enterprise Firewall v8.0<br>For event management:<br>■ Symantec Gateway Security 5400 Series v2.0<br>■ Symantec Enterprise Firewall v8.0<br>■ Symantec Gateway Security 5110, 5200, 5300, 5310 v1.0*<br>■ Symantec VelociRaptor 500, 700, 1000, 1100, 1200, 1300, 1310 v1.5*<br>■ Symantec Enterprise Firewall v7.0*<br>■ Select third-party products (using a separately purchased event collector) |
| Symantec Event Manager for Security Gateways (Group 1) v2.0.1 | For event management only:<br>■ Symantec Gateway Security 5400 Series v2.0<br>■ Symantec Enterprise Firewall v8.0<br>■ Symantec Gateway Security 5110, 5200, 5300, 5310 v1.0*<br>■ Symantec VelociRaptor 500, 700, 1000, 1100, 1200, 1300, 1310 v1.5*<br>■ Symantec Enterprise Firewall v7.0*<br>■ Select third-party products (using a separately purchased event collector) |

* Security products marked with an asterisk do not have integrated SESA support. To manage these products from SESA, you must install the Symantec Event Manager for Firewall v1.0, which is included on your product CD-ROM. For installation instructions, refer to the *Symantec Advanced Manager for Security Gateways, Symantec Event Manager for Security Gateways Integration Guide.*

Symantec Advanced Manager and Symantec Event Manager require the version 1.1.5 SESA Foundation Pack (purchased separately).
Your SESA environment must be installed and fully operational before installing the Symantec Advanced Manager or Symantec Event Manager on the SESA Manager workstation.

Consult the *Symantec$^{TM}$ Enterprise Security Architecture Installation Guide* and the *Symantec$^{TM}$ Enterprise Security Architecture Administrator's Guide* for further information.

## Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1

Symantec Advanced Manager for Security Gateways is a software security solution, installed on the SESA Manager computer, that plugs into the SESA Console. It provides a Web-based graphical user interface through which you can monitor and organize a large number of security gateways, along with other SESA-compliant products.

Advanced management through SESA lets you manage both policies and location settings of connected security gateways, in addition to collecting events from those systems. SESA management also provides scalable management by allowing multiple security gateways to share common policies and location settings.

SESA management provides many features important to centralized and scalable management, including:

- Logical grouping of security gateways into organizational units
- Management of multiple configurations
- Sharing of configurations across security gateways
- Validation of multiple configurations in a single action
- Distribution of configurations to many security gateways in a single action

The Symantec Advanced Manager also includes the Symantec Event Manager for Security Gateways (Group 1) v2.0.1 product (described in the next section) for centralized event logging, alerting and reporting.

## Symantec Event Manager for Security Gateways (Group 1) v2.0.1

Symantec Event Manager for Security Gateways is a standards-based software security solution that provides centralized logging, alerting, and reporting across Symantec's security gateway protection solutions and select third-party products.

Symantec Event Manager delivers security information to the SESA DataStore, letting you see a centralized, consistent view of your security events from the SESA Console. Security events and log messages can be viewed in a variety of predefined or custom report formats.

By collecting and formatting information from Symantec and third-party supported products, the Symantec Event Manager consolidates and normalizes security event data, making impending threats more easily identifiable.

Combining powerful alert notification, enterprise reporting and role-based administration with a highly scalable secure architecture, the Symantec Event Manager is ideally suited for medium-to-large enterprises and supported security services environments.

If you have separately purchased an Event Collector for a third-party firewall product, you can also view events generated by that product.

Symantec Event Manager for Security Gateways is installed on the SESA Manager computer. You join each local security gateway to SESA using the controls provided in the Security Gateway Management Interface (SGMI).

Symantec Event Manager is automatically installed if you install the Symantec Advanced Manager for Security Gateways. You can also install the Symantec Event Manager alone if you have systems that will be used only for event management.

### Symantec Event Manager for Firewall v1.0

To manage legacy products, the Symantec Event Manager for Firewall v1.0 is also included on the Symantec Advanced Manager for Security Gateways and Symantec Event Manager for Security Gateways CD-ROMs. Symantec Event Manager integrates event collection for legacy Symantec security gateways (see Table 1-1) and third-party security gateways with Symantec Enterprise Security Architecture (SESA) version 1.1.5.

## Event reporting to SESA

Some Symantec security gateways use a different process to report events to SESA:

- Products without integrated SESA support use an intermediate log server to collect events. The log server houses a SESA Agent that formats the messages, making them acceptable to SESA, and then forwards the events to the SESA Manager.
- Security gateways that host the agent locally do not require an intermediate log server. When a security gateway joins SESA, the agent is downloaded to the security gateway and activated. The SESA Agent formats the messages, making them acceptable to SESA, and then forwards the events to the SESA Manager.
  See "Security gateway products that integrate with SESA" on page 17.

## Customizing SESA event reporting

When first installed, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 (or Symantec Event Manager for Firewall v1.0) is configured to report a subset of key (non-statistical) security events or log messages to SESA.

You can change the definition of events that are reported to SESA by editing the configuration of the applicable Symantec Event Manager. You should carefully consider your selections when determining the events to send to SESA; enabling all events or statistical events incurs additional overhead, and may slow system performance.

When managing Symantec security gateways that have integrated SESA support, you can change the definition of events that are reported to SESA using the event gating feature of the local security gateway.

When managing Symantec security gateways that do not have integrated SESA support, you change the definition of events that are reported to SESA by editing rule definitions in the DE_FirstPass.rule configuration file.

See See "Modifying DE_FirstPass.rule (optional)" on page 435.

A complete list of log messages is contained in the *Symantec Security Gateways Reference Guide*.

# About this guide

This guide is intended for administrators who intend to join and manage Symantec security gateways to the Symantec Enterprise Security Architecture (SESA) using one of the following products:

- Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1
- Symantec Event Manager for Security Gateways (Group 1) v2.0.1

The goal of this guide is to describe how to use the Symantec Advanced and Event Manager products to manage security gateways in SESA. If appropriate, related functions in the overall SESA Console are described along with references to the SESA administrator documentation or online Help for more information.

This guide assumes that your SESA environment is already installed and working properly. If your SESA environment is not yet installed, consult the *Symantec Enterprise Security Architecture Installation Guide* and the *Symantec Enterprise Security Architecture Administrator's Guide*.

# Where to find more information

Additional information can be found in supporting documents that are provided in PDF format on the product software CD-ROMs.

The following documents are provided on the CD-ROM:

- *Symantec™ Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec™ Event Manager for Security Gateways (Group 1) v2.0.1 Administrator's Guide* (this guide)
- *Symantec™ Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec™ Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide*
- *Symantec™ Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec™ Event Manager for Security Gateways (Group 1) v2.0.1 Release Notes*

# How security gateways are managed through SESA

This chapter includes the following topics:

## Managing security gateways through SESA

Symantec security gateways and select third-party products are integrated and managed through the Symantec Enterprise Security Architecture (SESA) using the Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1 and the Symantec Event Manager for Security Gateways (Group 1) v2.0.1 security products.

This chapter describes how security gateways are managed through SESA, including:

- The administrative features of SESA that are used to prepare and manage security gateways in the SESA environment.
- The concepts of advanced management and the tools you use to configure and manage security gateways in the SESA environment.
- The event management features of SESA that provide centralized logging, alerting, and reporting for all managed security gateways.

The information presented in this chapter is conceptual in nature; step-by-step procedures for administrative tasks are contained in Chapter 3 “Getting started with Symantec Advanced Manager” on page 37.

If you are new to managing Symantec security gateways through SESA, you should carefully review and familiarize yourself with the material in both chapters before logging on and using the SESA Console.

# About Symantec Enterprise Security Architecture

Symantec Enterprise Security Architecture (SESA) integrates multiple Symantec enterprise security products and third-party products to provide flexible control of security within organizations. SESA provides a common management framework, known as the SESA foundation, for the SESA-enabled security products that protect your IT infrastructure.

The SESA Console is the common user interface that provides manageable integration of your security technologies (Symantec or otherwise).

For detailed information about SESA, see the *Symantec Enterprise Security Architecture Installation Guide* and the *Symantec Enterprise Security Architecture Administrator’s Guide*.

## SESA Components

The SESA foundation consists of several individual components that together provide a unique, scalable security infrastructure.

SESA uses SESA Agents that are installed on security product, a SESA Directory, a SESA DataStore, and a SESA Manager. to collect, store, process, and report security events to the SESA Console, and to distribute configuration changes to SESA and SESA-enabled security products. In some cases, security products may also use a SESA Event Collector to collect security events for forwarding to SESA.

The following table describes how the security gateway integrates with the individual SESA components.

**Table 2-1** Symantec security gateway relationship to SESA

| SESA component | How the security gateway interacts |
|---|---|
| SESA Manager | The SESA Manager is the hub for the SESA Directory and the SESA DataStore. It is a central processing unit (server) for the SESA Agents, SESA DataStore, SESA Directory, and SESA Console. All SESA data passes through the SESA Manager.<br>You install the Symantec Advanced Manager for Security Gateways and the Symantec Event Manager for Security Gateways on the SESA Manager computer. |
| SESA DataStore | This relational database stores all event and alert data generated by SESA and SESA-enabled products, such as Symantec security gateways. |
| SESA Directory | The SESA Directory stores the configuration data required to manage SESA-enabled security products and SESA services on the network.<br>As new security gateways are installed, SESA automatically adds the devices to the SESA Directory. |
| SESA Agent | The SESA Agent runs on the security gateway and handles communications between the SESA-enabled security gateway and the SESA Manager. It passes data from the security gateway to the SESA Manager and receives product configuration data.<br>For legacy Symantec security gateways and third-party security gateways, the SESA Agent works with installed event collectors to pass event data to the SESA Manager.<br>For more information on managing Symantec legacy or third-party products from SESA, see the chapter “Introducing Symantec Event Manager for Firewall (legacy products)” in the *Symantec Advanced Manager for Security Gateways, Symantec Event Manager for Security Gateways Integration Guide*. |
| SESA Console | The SESA Console is a Java-based framework that creates a common environment for the management of diverse security products. It runs in a Web browser with a secure connection and provides the graphical user interface to view events and to push down configurations.<br>With Symantec Advanced Manager, you use the SESA Console to view, manage, and distribute security gateway configurations. With Symantec Event Manager, you use the SESA Console to view and analyze events. |

# SESA administrative features used with security gateways

To manage your security gateways in SESA, you must plan for and configure some of SESA's administrative features. You perform these tasks from the SESA Console System view tab, using SESA wizards.

Features that you will configure include:

- Organizational units that reflect the organization of your security gateways
- Users who will use SESA to manage or monitor security gateways
- Roles that define what security gateway users can see and do in the SESA Console

**Note:** The SESA System view tab also lets you create configuration groups to distribute configurations that supersede those distributed by organizational units.

While you can use this method to distribute configurations for other security products, you cannot use configuration groups to distribute Symantec security gateway configurations.

## Organizational units

Organizational units let you define the top level organization of your security gateways so that your SESA environment reflects how your organization is handling or plans to handle its security management needs.

You can create organizational units based on any of the following:

- Business functions, such as marketing, operations, and accounts payable
- IT functions
- Product groups, such as antivirus and firewall
- Location; regions, cities, or building floors

Symantec Advanced Manager lets you organize security gateways into logical groupings, and apply the same policies to similar security gateways. As you add new security gateways, you can use the policies that you have already created to quickly provide them with configurations.

When you manage multiple security gateways, you can use the SESA concept of organizational units to group your security gateways in the SESA Console System view. This lets you more clearly see how the entire network is structured.

Organizational units also provide a mechanism to let member security gateways inherit an associated policy and location setting, thereby simplifying management of many systems.

For example, when a security gateway that is a member of a cluster joins SESA, it and all other members of the cluster are automatically placed in a single organizational unit. All cluster members inherit their configurations from the configuration that is associated with the organizational unit. This enforces the requirement that all members of a cluster must share the same configuration. You cannot associate a policy or location settings to an individual cluster member. If you try to run the Associate Wizard on a clustered security gateway, you will receive an error message.

For Symantec Advanced Management, the process by which you register your security gateway machines with SESA is the Join SESA Wizard. If you have already created organizational units, when you run the Join SESA Wizard, you can specify the organizational unit to which your security gateway machine will belong. If you have not created organizational units, your security gateway machines are assigned to the Default organizational unit when they join SESA.

Later, you can create organizational units to represent your security environment and move the security gateway into one of them. If you create organizational units before you join security gateways to SESA, you can eliminate the step of having to move the security gateways to their intended destinations.

**Note:** Symantec Advanced Manager supports single level organizational units. For other products and other uses of SESA, you can create nested organizational units using a hierarchical structure to reflect your organization’s management structure.

### Default organizational units

The pre-configured organizational units in the following table already exist when you access the SESA Console for the first time.

**Table 2-2** Default organizational units

| Organizational Unit | Description |
|---|---|
| Default | The Default organizational unit contains computers on which SESA Agents are installed, but have not yet been assigned to other organizational units. When you create organizational units, you can move computers from the Default unit to a newly created organizational unit as necessary. |
| Managers | The Managers unit contains computers on which the SESA Manager is installed. You cannot move computers that have SESA Managers installed on them from the Managers unit to other organizational units: SESA Managers always stay in the Managers organizational unit.<br>When a SESA Manager computer also has a SESA-enabled security product installed, the computer remains in the Managers unit only and does not show in the Default unit or any other unit. |

## SESA users

SESA maintains a list of SESA users, who are people who have SESA management or non-management roles.

A Default Administrator user is defined during SESA installation. The Default Administrator has access rights to the entire SESA administrative domain. When you first log on to the SESA Console, it will be as the Default Administrator.

For ongoing use, you should determine how your SESA environment will be accessed. Your choices include:

- A single administrator
- Multiple administrators, each managing a separate security product
- Users whose purpose in accessing SESA is only event monitoring
- Users who will be the recipients of notifications

If you do not plan to have a single administrator, you should create SESA users for each type of SESA access you require.

When you create SESA users, they have no access rights. For users to log on to the SESA Console, you must give them permissions appropriate to their management responsibilities. These permissions are defined in SESA roles that you create and assign to users.

See "Roles in SESA" on page 29.

## Roles in SESA

SESA uses role-based administration. A role is a set of permissions for specific management operations. A SESA Console user can be a member of one or more roles. The logon identity of SESA Console users determines their role assignment during an administrative session.

Roles separate permissions for accessing and using SESA. Roles that you can create for security gateway management in SESA include:

- An event monitoring role
  You can assign technicians who monitor events and alerts to a Security Monitoring role. When they log on to SESA, this role lets them view data from all types of SESA-enabled security products, but does not grant permission to change product configurations.
- A configuration management role
  You can give your security gateway administrator a role assignment that allows the user to change and distribute configurations but not to view events from other security products.
- The SESA Domain Administrator role
  SESA installs with a SESA Domain Administrator role, which is assigned to the Default Administrator user. The Domain Administrator role includes permissions to add users, roles, organizational units, and configuration groups to the SESA domain.
  SESA users who do not belong to the SESA Domain Administrator role cannot see the System view tab in the SESA Console. You can add users to the Domain Administrator role to grant Domain Administrator Role permissions and access to the System view tab.

# Advanced management concepts

This section describes the concepts of advanced management and the tools you use to configure and manage security gateways in the SESA environment.

To help you understand how Symantec Advanced Manager lets you manage security gateways through SESA, you should become familiar with the following advanced management concepts:

- How the components of a security gateway configuration are created and used in SESA.
  See "Advanced Manager configuration components" on page 30.
- How Symantec Advanced Manager handles configuration revisions.
  See "Configuration revisions" on page 31.
- How configurations are associated, validated, and activated for your security gateways.
  See "Associating a policy or location setting" on page 32, "Validating a configuration" on page 32 and "Activating a configuration" on page 32.
- How configurations are exported and inherited.
  See "Advanced Manager configuration components" on page 30.

## Advanced Manager configuration components

You manage SESA-enabled security gateways by creating and distributing security gateway configurations that are stored in SESA.

A security gateway's configuration is a combination of:

- A policy and location settings
  You configure policy and location settings in the SESA Console in the same way as you configure them in the Security Gateway Management Interface (SGMI).
  The difference is, in SESA, you configure policy or location settings once and then apply them to multiple security gateways.
- System-specific settings that are specific to the local gateway
  When the security gateway joins SESA, the system information about the physical machine is sent to SESA.

When you join a security gateway to SESA, you can export and register a copy of the security gateway's local configuration with SESA, or you can inherit a previously registered configuration. SESA stores the associated policy and location settings for each registered system.

### Understanding policies

A policy describes the security stance of the security gateway to which it is applied. Using Symantec Advanced Manager, you can share policies among multiple security gateways.

The policies you define using the SESA Console are identical to the policies you define using the local management interface, Security Gateway Management Interface (SGMI). They contain data such as firewall rules, service groups, VPN policies, and content filtering.

For Symantec Gateway Security appliances, antivirus, intrusion detection, and intrusion prevention policies can also be applied.

### Understanding location settings

Location settings describe the network in which a security gateway lives by grouping logical network and user definitions. They include definitions of network entities, tunnels, and users.

Locations settings can be shared among multiple security gateways, but are often uniquely defined for each specific location in which a single or clustered Symantec security gateway environment exists.

As with policies, the location setting options that you configure using Symantec Advanced Manager are identical to those that you configure in the Location Settings window of the SGMI.

### Understanding local system settings

Each security gateway that connects to SESA has some settings that apply only to that system. System settings are configured locally through SGMI, and are not configured using the SESA Console.

Local system settings include local system information, network interfaces and routes, license features, and cluster configurations.

Before you distribute a configuration, Symantec Advanced Manager validates it against the stored copy of your local system settings.

## Configuration revisions

A revision is a version of a configuration. As you modify a configuration’s policy or location settings, and deploy these modifications, a new revision is created.

Only two revisions are maintained by SESA at any given time: the revision that has been distributed (currently active), and a working copy that may not yet have been validated and activated.

When you make changes to a configuration, you can copy the current configuration and work with the copy instead of working with the active configuration.

## Associating a policy or location setting

Every security gateway managed by Symantec Advanced Manager is configured with a policy and location settings. For the security gateway to function properly, the policy and location settings must function properly with each other.

To ensure this, Symantec Advanced Manager validates the policy and location settings against each other, and against the local system settings before they are activated on a security gateway. Before the validation can take place, you must associate the policy and location settings with a security gateway, so that Symantec Advanced Manager knows which local system settings to use when validating.

To determine which security gateways you will impact if you make a change to a selected policy or location settings, you can use the Symantec Advanced Manager Show all associated gateways feature to display all the security gateways that are associated with the policy or location settings.

## Validating a configuration

Validation is the process that checks a configuration for completeness, ensures that all values are valid, and determines if all logical and physical references between a policy, location settings, and a security gateway's system settings can be resolved. Symantec Advanced Manager uses validation to ensure that each connected security gateway gets a policy and location settings that work for that system.

## Activating a configuration

Activation is the process that Symantec Advanced Manager for Security Gateways uses to push a new version of a configuration down to all security gateways that use it.

Successful validation is a required piece of the activation process. When you select Activate from the Selection menu, SESA first validates the configuration, and then, if validation is successful, activates the changes.

# Scalable management with organizational units

Scalable management introduces the concept of organizational units and physically separating security gateways in the SESA Console view. By separating security gateways in this manner, you can more clearly see how the entire network is structured. Organizational units also provide a mechanism to let member security gateways inherit an associated policy and location settings, simplifying management of many systems.

## Organizational units

Organizational units are management objects that you can create using the SESA Console. They are used to store information about computers in the SESA Directory. Every security gateway that joins SESA is assigned to an organizational unit.

Although you can use the Default organizational unit for all your computers, creating your own organizational units can simplify the management of your security gateways. Like a company organization chart, organizational units can logically group the machines you manage.

You can create your organizational units to represent departments within your organization, levels of access, geographical location, or any other logical grouping. If you prefer, you can assign every security gateway to the same organizational unit. However, you can gain greater benefit by planning and logically grouping systems into their own organizational units.

Every security gateway has an associated policy and location settings. Similarly, you can associate policy and location settings with an organizational unit, so that they can be inherited by any security gateway that is in the organizational unit. This mechanism lets you apply the same policy and location settings to multiple security gateways.

For security gateways in a cluster, you must associate configurations with the cluster’s organizational unit. This enforces the requirement that all members of a cluster must share the same configuration. You cannot associate a policy or location settings to an individual cluster member. If you try to run the Associate Wizard on a clustered security gateway, you will receive an error message.

For instructions on creating an organizational unit, see the *Symantec Enterprise Security Architecture Administrator’s Guide* or use the SESA Console Help system.

## Moving a security gateway into an organizational unit

When a security gateway first joins SESA, the Join SESA Wizard requires that you select an organizational unit to which the security gateway will be assigned.

If you have not yet created organizational units, you must assign the security gateway to the Default organizational unit. Later, you can create organizational units to represent your security environment and move the security gateway into one of them.

If you create organizational units before you join security gateways to SESA, you can eliminate the step of having to move the security gateways to their intended destinations.

For more information, see the section on moving a computer to a different organizational unit in the *Symantec Enterprise Security Architecture Administrator's Guide*, or use the SESA Console Help.

## Exporting and inheriting

When you place a security gateway in an organizational unit using the Join SESA Wizard, you can also place its policy and location settings in the organizational unit by choosing to export them. When you log on to the SESA Console, the policies and location settings are available for you to modify. You can change either the policy or location settings, and then validate and activate your changes on the security gateway.

Alternately, if the organizational unit already has a policy and location settings associated with it, you can choose to inherit them. When you do this, changes that you make to the configuration do not have to be validated individually for each security gateway. You can edit either the policy or location settings associated with the organizational unit, and then validate and activate the changes once.

Inheriting both the policy and location settings from an organizational unit generally applies to either a clustered situation (because the cluster is represented as an organizational unit), or to a network of security gateways that are failovers for each other.

# Event management concepts

SESA helps organizations manage security events by providing common logging of normalized event data for SESA-supported and SESA-enabled security products. In addition, SESA has a notification system for the events that are generated by SESA-enabled security products and SESA itself. SESA also provides robust reporting capabilities.

## Event logging and viewing

SESA provides centralized logging and event viewing capabilities. Each Symantec security gateway forwards events to its SESA Agent, which manages and queues the events and sends them to a SESA Manager. The SESA Manager then logs the events in the SESA DataStore.

Event viewing is provided through the SESA Console Event tab. You can query, filter, and sort events to quickly find computers that are not protected, are out-of-date, or have high-severity events occurring.

## Alert and alert notifications

SESA lets you create alert configurations for events that are collected in the SESA DataStore.

You can configure alerts to use a specific set of event criteria. You can also specify that an alert will accumulate events until a certain number are received or within a time interval. By specifying event criteria and applying thresholds, you can use alerts to consolidate the many events that SESA-enabled security products generate.

Alert configurations can also include notifications to pagers, SNMP traps, email, and operating system event logs. You can define the notification recipients, day and time ranges when specific recipients are notified, and custom data to accompany the notification messages. Each notification recipient has one or more preferred ways of receiving notification. You choose the user to notify for a particular alert or group of alerts.

## Centralized reporting

SESA provides centralized reporting capabilities, including graphical reports. SESA installs with some common reports. Security gateways have additional predefined reports. You can also create custom reports.

You can use reports to present statistics, recent activity, outbreak and intrusion conditions, and so on. SESA provides a variety of report formats such as trend graphs, pie charts, stacked bar charts, and tables, all of which let you drill down to the particular data that you need. You can print current SESA Console views of events and alerts as reports, or save the views as reports and export them to other formats.

Chapter 3

# Getting started with Symantec Advanced Manager

This chapter includes the following topics:

## Pre-installation tasks

Before logging on and attempting to use Symantec Advanced Manager, ensure you have completed the following tasks:

**Table 3-1** Tasks required to access the SESA Console

| Task | Procedure |
|---|---|
| To manage Symantec Gateway Security 5400 Series appliances v2.0 or Symantec Enterprise Firewall v8.0, install Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1 or Symantec Event Manager for Security Gateways (Group 1) v2.0.1 | See Section 2, Installing SESA Integration Components for Symantec Advanced Manager and Symantec Event Manager for Security Gateways in the Integration Guide (located on your product CD-ROM). |

**Table 3-1** Tasks required to access the SESA Console (Continued)

| Task | Procedure |
|---|---|
| To manage Symantec legacy products (such as Symantec Gateways Security v1.0 appliances, Symantec Enterprise Firewall v7.0, and VelociRaptor v1.5) install Symantec Event Manager for Firewall | See Section 3, Installing SESA Integration Components for Symantec Event Manager for Firewall in the Integration Guide (located on your product CD-ROM). |
| Run the SESA Setup Wizard from the Security Gateway Management Interface (SGMI) of each local security gateway that will join SESA. | See Appendix B, Joining SESA in the *Symantec Enterprise Firewall Administrator's Guide* (located on your product CD-ROM).<br>**Note:** The Join SESA procedure is also repeated for your convenience in Appendix E, Joining SESA of this guide. |
| Access and log on to the SESA Console. | "Accessing the SESA Console" on page 38. |

# Accessing the SESA Console

The SESA Console connects you to the SESA Manager. It displays in either a Microsoft Internet Explorer or Netscape browser window.

Before you log on, ensure your system meets the minimum log on requirements, as described in "Log on prerequisites" on page 39.

Then follow the logon procedure, described in "Logging on to the SESA Console" on page 39.

## Default SESA logon privileges

All users who first log on to the SESA Console do so as a member of the Domain Administrator role. The default role Domain Administrator is created when the SESA Manager is installed. The Domain Administrator role provides complete access to manage the entire Symantec Enterprise Security domain. The default user, also created when the SESA Manager is installed, is automatically a member of this role. To access the SESA Console the first time, you must log on as this default user.

You can add other users to this role, but you cannot change any other characteristics of the role. Any user who needs access to the System view tab to create or modify management objects must be a member of the Domain

Administrator role. Once a user is a member of the Domain Administrator role, no other roles are needed.

As soon as practical, you should develop and implement a plan for each user and the level of access they require within the SESA infrastructure. Leaving all users who access the system as members of the Domain Administrator role could compromise the integrity of your secured environment.

A complete description of SESA roles and users is described in the chapter "Defining the administrative structure of SESA" in the *Symantec Enterprise Security Architecture Administrator's Guide* and online Help, which is accessible from the SESA Console.

## Log on prerequisites

To run the SESA Console, your system must meet the following requirements:

- Java Runtime Environment (JRE) 1.3.1_02
  If you do not have the correct JRE version, you will be directed to the following SUN site to download and install it:
  http://java.sun.com/products/archive
  If you are not able to download the JRE by way of the internet, it is also available on the SESA installation CD-ROM.
- For Windows, Microsoft Internet Explorer 6.0; Netscape 7 (with latest security patches applied).
- For Solaris, Netscape version 7 (with latest security patches applied).
- 256-color video adapter.
- Active X, scripting, and Java VM must be enabled in the Internet browser.

## Logging on to the SESA Console

You can log on to the SESA Console either from a remote machine or from the SESA Manager itself.

By default, your connection is secured using Secure Socket Layer (SSL).

### To log on to the SESA Console

1 Do one of the following:
   - To connect from a remote machine:
     Open a Microsoft Internet Explorer or a Netscape browser window.
     In the Address text box, type the URL for the SESA Manager, for example:
     **https://<your SESA manager IP address or domain name>/sesa/ssmc**

where <your SESA manager IP address or domain name> is the IP address or fully qualified domain name of your SESA manager.

Press **Enter**.

- To connect from the SESA Manager:

  Log on to the account used to install the SESA Manager.

  From the Start menu, choose **Programs** > **Symantec Enterprise Security** > **SESA Console**.

2 One or both of the following security messages are displayed. Take the action required for the messages that appear on your screen.

- If you have not previously disabled it, a security alert message warns you that you are about to view pages over a secure connection. Disable future displays of this warning by clicking the check box and then click **OK**.
- A security alert message concerning your site's security certificate appears. Click **Yes**.

  If you do not want this dialog box to appear in the future, upgrade to self-signed SSL certificates, or, as recommended by Symantec, to fully authenticated signed SSL certificates. These upgrade procedures are described in the *Symantec Enterprise Security Architecture Installation Guide*.

3 In the Logon name text box, type the SESA administrator's user name.

4 In the Password text box, type the SESA administrator's password.

5 Click **Log on**.

The SESA Console appears in the browser window.

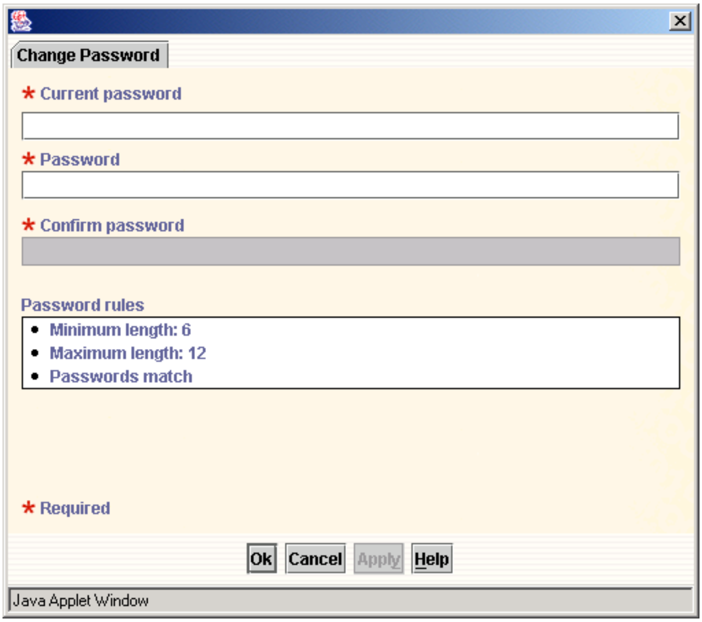
## Changing your password

To meet the requirements of your company's security policies, you may need to periodically change your logon password.

### To change your password

1 In the SESA Console, in any view, on the Console menu, click **Change Password**.

2 On the Change Password tab, in the Current password text box, type your current password.



- Minimum length: 6
- Maximum length: 12
- Passwords match

3 In the Password text box, type a new password.
Passwords are case sensitive and must be 6 to 12 alphanumeric characters in length.
Green check marks under Password rules indicate that your password conforms to the length rules.

4 In the Confirm password text box, type the password again to confirm it.
A green check mark indicates that the passwords match.

5 Click **OK**.

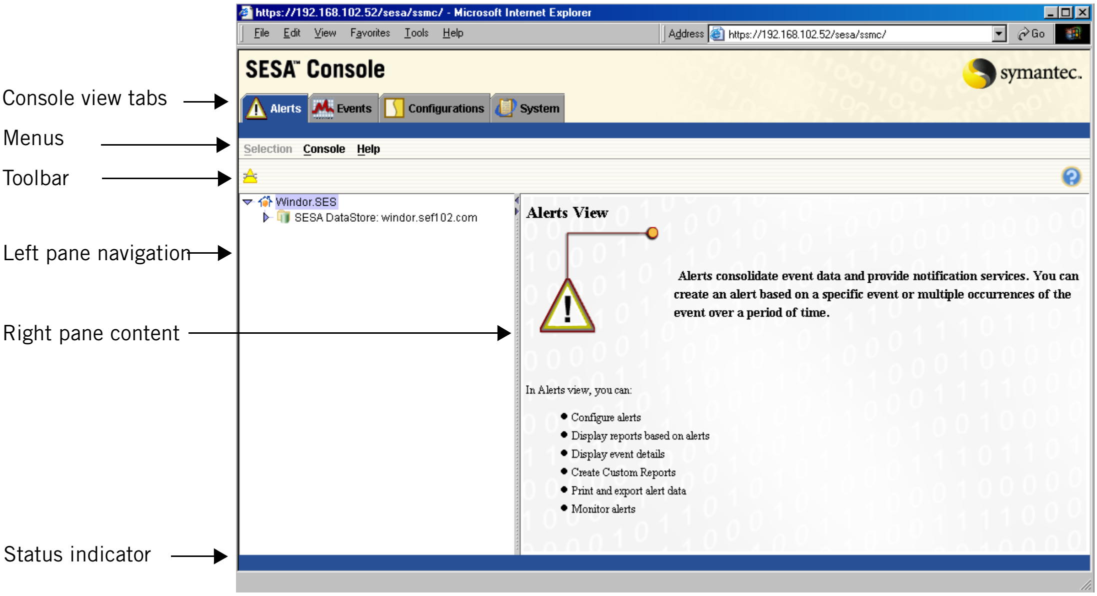
# Symantec Advanced Manager user interface

After joining SESA by running the SESA Setup Wizard (from the SGMI), and logging on to the SESA Console as described in "Logging on to the SESA Console" on page 39, if successful, the SESA Console appears.

The console includes the following components:

- Console view tabs
- Menus
- A toolbar
- Left pane navigation
- Right pane content
- Status indicator

**Figure 3-1** SESA Console view



Alerts View

Alerts consolidate event data and provide notification services. You can create an alert based on a specific event or multiple occurrences of the event over a period of time.

In Alerts view, you can:

- Configure alerts
- Display reports based on alerts
- Display event details
- Create Custom Reports
- Print and export alert data
- Monitor alerts

When managing security gateways using the SESA Console, you use the Console view tabs, shown above. The tabs that are available to you depend on the roles (permissions) that were assigned to you as a SESA Console user, and the security products you are managing.

The following table describes each console view tab and provides a reference within this document or the overall SESA documentation where you can find more information.

**Table 3-2** Console view tabs

| Console view tab | Description | For more information |
|---|---|---|
| Alerts | Displays reports of alerts. On the Alerts view tab, you can do the following:<br>■ Create alert configurations.<br>■ Monitor alert reports and create custom reports.<br>■ Display alert details.<br>■ Print and export alert data. | See "Creating alerts and notifications" on page 367. |
| Events | Displays various reports based on events that have been logged by your security products and the SESA Manager components.<br>On the Events view tab, you can do the following:<br>■ View reports and create custom reports.<br>■ Create alert configurations based on events.<br>■ Display event details.<br>■ Print and export event data. | See "Viewing event reports" on page 351. |

**Table 3-2** Console view tabs (Continued)

| Console view tab | Description | For more information |
|---|---|---|
| Configurations | Displays your security product configurations. On the Configurations view tab, you can do the following:<br>■ Create new product software feature configurations.<br>■ Modify configurations.<br>■ Associate configurations with computers, organizational units, and configuration groups.<br>■ Distribute configurations. | See "Configuring security gateways" on page 77. |
| System | Displays your security infrastructure. On the System view tab, you can do the following:<br>■ Create and manage roles, users, organizational units, computers, and configuration groups.<br>■ Associate configurations with organizational units, computers, and configuration groups.<br>■ Distribute configurations. | See the *Symantec Enterprise Security Architecture (SESA) Administrator's Guide* or the online Help accessible from the SESA Console. |

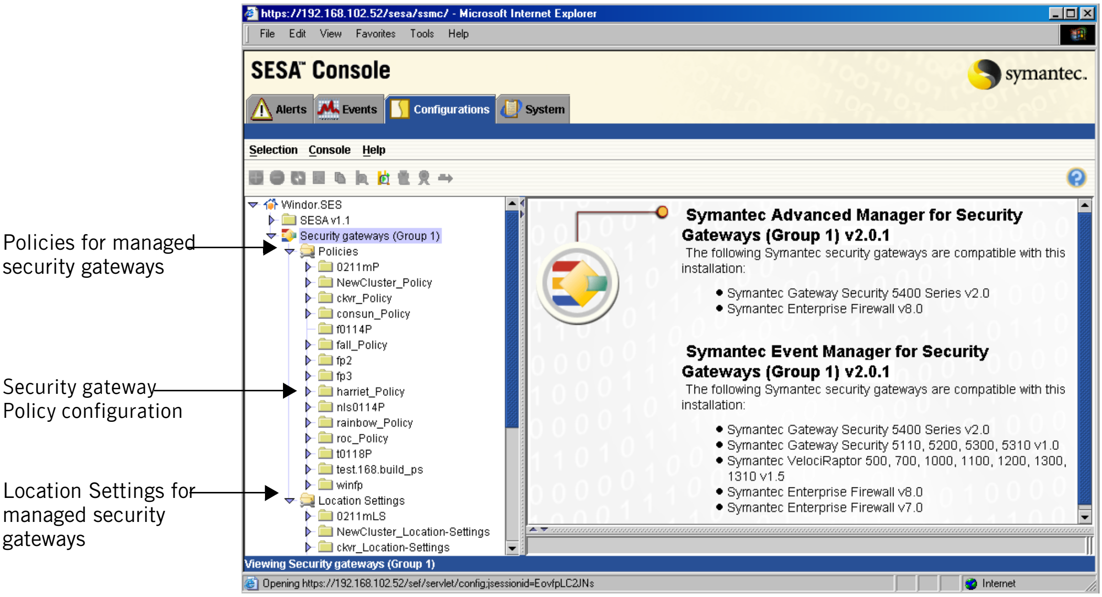
# Viewing security gateway configurations in the SESA Console

Security gateway configurations are managed through the Configurations View tab. The hierarchical directory structure in the left pane view includes an entry for Security gateways (Group 1). When expanded, two configuration options, Policies and Location Settings are displayed.

| | |
|---|---|
| Policies | Click on this folder in the left pane to configure rules, service groups, VPN policies, filters, and rating profiles. |
| Location Settings | Click on this folder in the left pane to configure network entities, users, VPN tunnels, and authentication methods. |

A Policy and Location Settings folder should appear for each security gateway that has joined and registered its configuration with the SESA Manager. Before continuing, you may want to verify that folder exists for each security gateway you have joined to SESA.

**Figure 3-2** Left pane display showing managed security gateways



Policies for managed security gateways

Security gateway Policy configuration

Location Settings for managed security gateways

**Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1**

The following Symantec security gateways are compatible with this installation:

- Symantec Gateway Security 5400 Series v2.0
- Symantec Enterprise Firewall v8.0

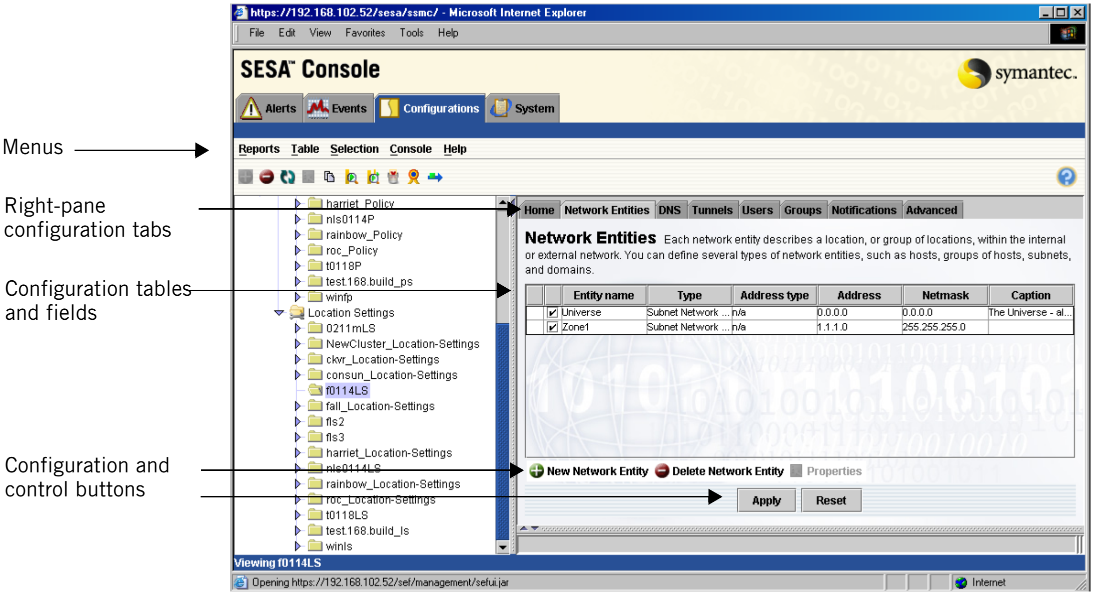
**Symantec Event Manager for Security Gateways (Group 1) v2.0.1**

The following Symantec security gateways are compatible with this installation:

- Symantec Gateway Security 5400 Series v2.0
- Symantec Gateway Security 5110, 5200, 5300, 5310 v1.0
- Symantec VelociRaptor 500, 700, 1000, 1100, 1200, 1300, 1310 v1.5
- Symantec Enterprise Firewall v8.0
- Symantec Enterprise Firewall v7.0

Each left-pane Policy or Location Settings folder opens a window in the right pane with multiple tabs. Each tab contains a functional group of parameters and controls that let you configure the operation of security gateways.

**Figure 3-3** Right pane configuration controls



Menus

Right-pane configuration tabs

Configuration tables and fields

Configuration and control buttons

**Network Entities** Each network entity describes a location, or group of locations, within the internal or external network. You can define several types of network entities, such as hosts, groups of hosts, subnets, and domains.

| | | Entity name | Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | Universe | Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| | ☑ | Zone1 | Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

# Understanding menus

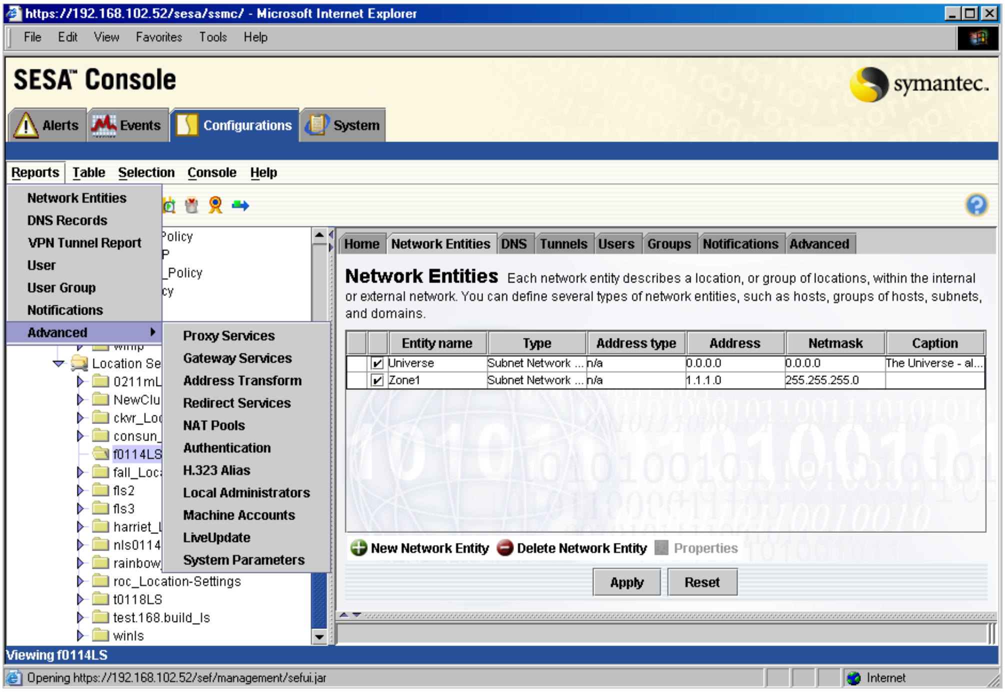
Symantec Advanced Manager for Security Gateways provides five special function menus that let you create or edit security gateway configurations:

- Reports menu
- Table menu
- Selection menu
- Console menu
- Help menu

## Reports menu

The Reports menu lets you view a configuration report for any feature component that currently has focus in the user interface. For example, if the Location Settings have focus, you can prepare a configuration report on currently configured Network Entities, DNS Records, or VPN Tunnels for example.

**Figure 3-4** Reports menu options



**Network Entities** Each network entity describes a location, or group of locations, within the internal or external network. You can define several types of network entities, such as hosts, groups of hosts, subnets, and domains.

| | Entity name | Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|---|---|
| ☑ | Universe | Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| ☑ | Zone1 | Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

Viewing f0114LS

Opening https://192.168.102.52/sef/management/sefui.jar

### To view a policy or location settings configuration reports

1. In the SESA Console, on the Configurations tab, in the left pane, click on the policy or locations settings for which you want to view a report.
2. On the Reports menu, select the report you want to view.
   The report is displayed in a separate window.

## Types of policies and location settings configuration reports

Each configuration report that is available from the Reports menu is listed below.

**Table 3-3** Policies and Location Settings Configuration Reports

| Policy configuration reports | Location settings configuration reports |
|---|---|
| Rules | Network Entities |
| Service Group | DNS Records |
| Filter | VPN Tunnel Report |
| Content Filtering<br>Rating Profiles<br>Rating Modifications<br>URL List<br>MIME Types<br>File Extensions<br>News groups<br>News group Profiles | User |
| VPN Policy Report | User Group |
| Global IKE | Notifications |
| Antivirus<br>■ Antivirus Configuration<br>■ Antivirus Mail Options | Advanced<br>■ Proxy Services<br>■ Gateway Services<br>■ Address Transform<br>■ Redirect Services<br>■ NAT Pools<br>■ Authentication<br>■ H.323 Alias<br>■ Local Administrators<br>■ Machine Accounts<br>■ LiveUpdate<br>■ System Parameters |
| IDS/IPS<br>■ IDS/IPS Configuration<br>■ IDS_BASEEVENTS_CONFIG_REPORT_MENU<br>■ IDS/IPS Portmap | -NA- |

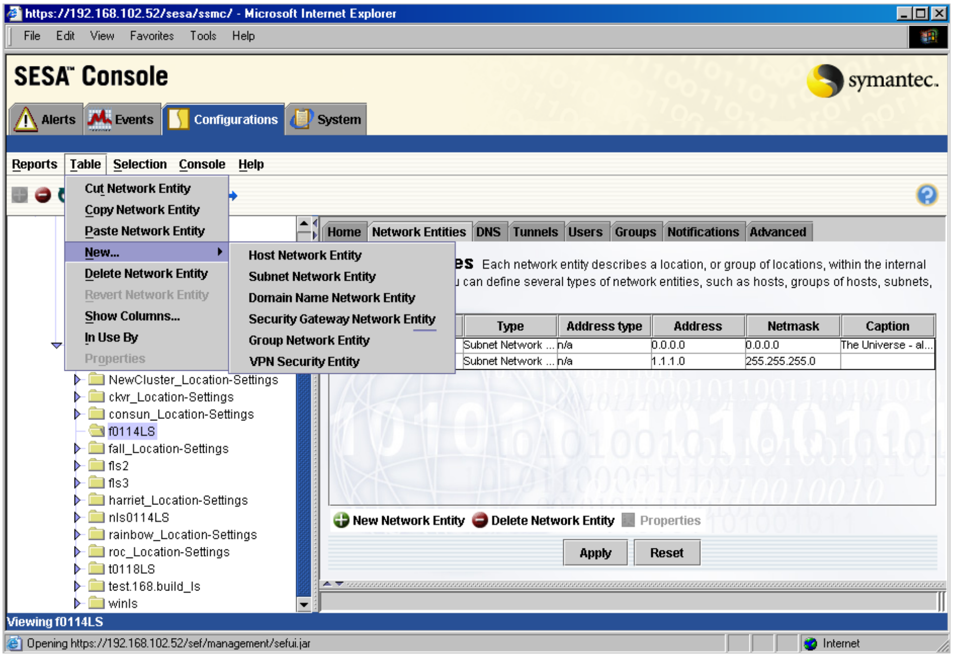
**Table 3-3** Policies and Location Settings Configuration Reports (Continued)

| Policy configuration reports | Location settings configuration reports |
|---|---|
| Advanced | -NA- |
| Logical Interfaces | -NA- |
| Protocol | -NA- |
| Times | -NA- |
| System Parameters | -NA- |

## Table menu

You can use the Table menu to add or delete entries from any of the configuration tables. The New selection varies depending on which configuration table is currently displayed. For example, when the Network Entities window is displayed, the Table menu lets you select the type of network entity to add to the table.

**Figure 3-5** Table menu options



es Each network entity describes a location, or group of locations, within the internal
u can define several types of network entities, such as hosts, groups of hosts, subnets,

| Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|
| Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

Opening https://192.168.102.52/sef/management/sefui.jar

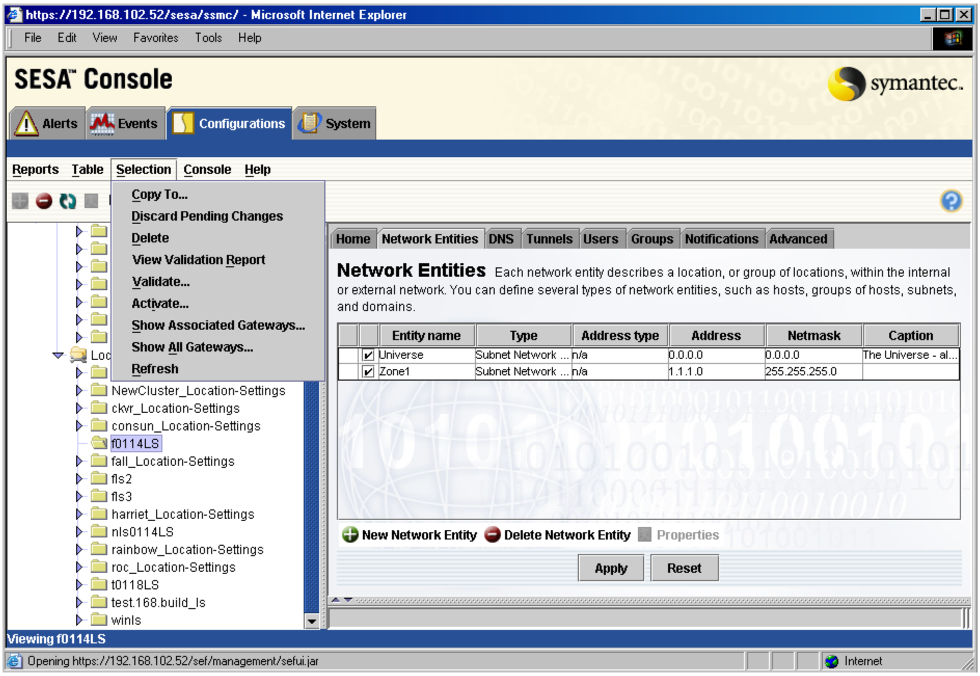
You can also use the Table menu to:

- Cut or paste a table entry
- Delete a table entry
- Revert a table entry (undo changes you have made to its configuration)
- Show Columns (customize which property window entries are displayed and their locations in the table)
- Display which other security gateway entities are using this table entry (by selecting In Use By)
- Display the currently configured properties of this table entry (by selecting Properties)

## Selection menu

The commands available on the Selection menu let you create and manage policy and location settings.

**Figure 3-6** Selection menu options



**Network Entities** Each network entity describes a location, or group of locations, within the internal or external network. You can define several types of network entities, such as hosts, groups of hosts, subnets, and domains.

| | | Entity name | Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | Universe | Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| | ☑ | Zone1 | Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

The configuration tasks that you can perform with the Selection menu include:

Copy To
Lets you copy a security gateway policy or location setting to another security gateway.

Discard Pending Changes
Lets you discard changes to your configuration without validation.

Delete
Lets you delete a security gateway policy or location setting.

View Validation Report
This selection lets you view a report on the most recent security gateway configuration validation.

Validate
Validates the configuration changes you have made and then prompts you whether to activate them.

Activate
Validates and distributes the changes you have made to your security gateway's configuration. After making configuration changes, you must select Activate to register the changes.

Show Associated Gateways
Shows all security gateways that use selected Policies or Location Settings.

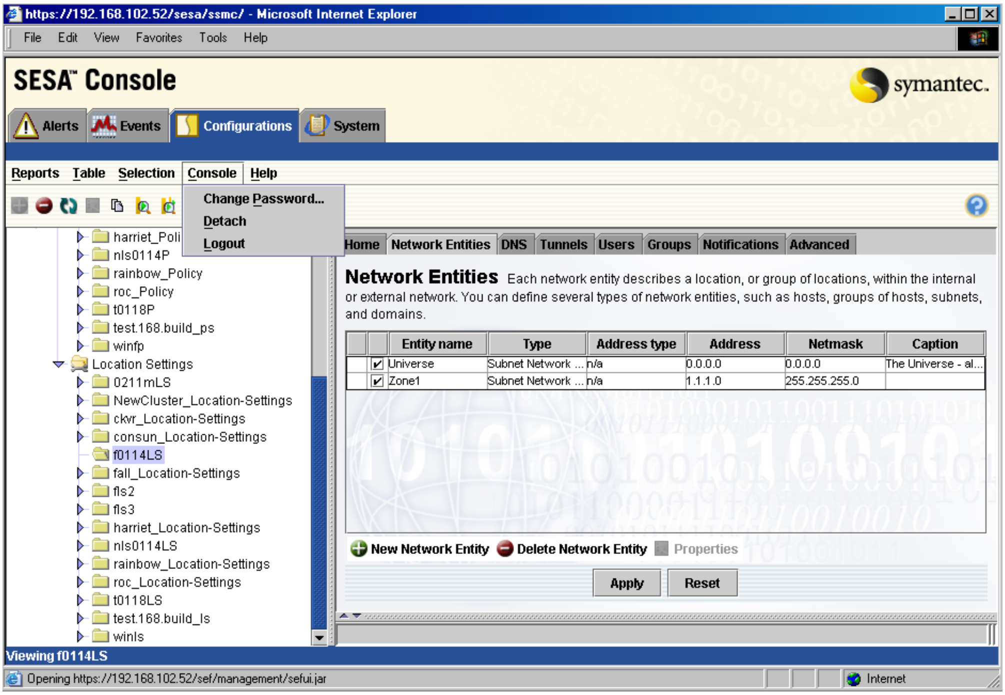
Show All Gateways
Shows all security gateways that are managed by the SESA Console. This selection also lets you associate an Organization Unit of a security gateway with a policy and location.

Refresh
Refreshes the GUI display.

## Console menu

The Console menu lets you temporarily disconnect from the SESA Console to allow local management of the security gateway. It also lets you change the SESA administrators password, and log off of the SESA Console.

**Figure 3-7** Console menu options



**Network Entities** Each network entity describes a location, or group of locations, within the internal or external network. You can define several types of network entities, such as hosts, groups of hosts, subnets, and domains.

| | | Entity name | Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | Universe | Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| | ☑ | Zone1 | Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

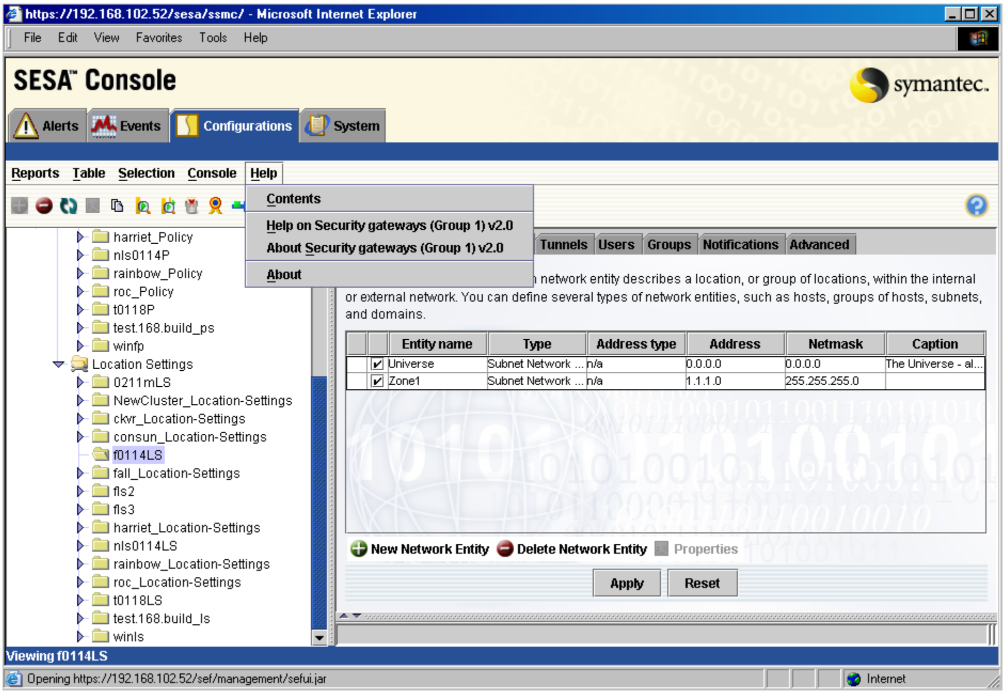
The selections on the Console menu include:

| | |
|---|---|
| Change Password | Lets you change the SESA administrator password. |
| Detach | Temporarily disconnects from the SESA Console to allow local management of the security gateway. |
| Logout | Log off of the SESA Console. |

## Help menu

The Help menu lets you access the online Help for the security gateway as well as the online Help for the SESA Manager. It also lets you check the current version of the security gateway or the SESA Manager.

**Figure 3-8** Help menu options



network entity describes a location, or group of locations, within the internal or external network. You can define several types of network entities, such as hosts, groups of hosts, subnets, and domains.

| | | Entity name | Type | Address type | Address | Netmask | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | Universe | Subnet Network ... | n/a | 0.0.0.0 | 0.0.0.0 | The Universe - al... |
| | ☑ | Zone1 | Subnet Network ... | n/a | 1.1.1.0 | 255.255.255.0 | |

The selections on the Help menu include:

Contents
Opens the Help system for the SESA Console, including the security gateway Help files.

Help on Security gateways (Group 1) v2.0.1
Open the Help system for the security gateway.

About Security gateways (Group 1) v2.0.1
Displays a dialog box showing the version of the security gateway.

About
Displays a dialog box showing the version of the SESA Manager.

## Toolbar buttons

Symantec Advanced Manager uses a unique set of buttons to help you configure and manage security gateways in the SESA Console. The tool bar buttons are a shortcut to functions in the SESA Console menus.

Table 3-4 shows the tool bar buttons, their function, and where they are displayed.

**Table 3-4** Toolbar buttons

| Button | Name | Function |
|---|---|---|
| + | Create a new policy | Creates a new policy. |
| ⊖ | Delete | Deletes the selected object. |
| 🔄 | Refresh | Refreshes the screen. |
|  | Properties | Displays the properties of the selected object. |
| ⧉ | Copy | Makes a copy the selected object. |
| 🔍 | Show gateways associated with the selected configuration | Shows all security gateways that are associated with the selected configuration. |
|  | Find all gateways | Finds all managed security gateways. |
|  | Discard changes made since last activation | Discards all changes made to a security gateway configuration since the last activation. |
| 🏅 | Check if the configuration is valid | Checks a selected configuration to determine if it is valid. |
| ➡ | Activate | Send a message to computers telling them to contact the SESA Manager for a new configuration. |
| ? | Help | Display online Help for the selected item. |

# Editing security gateway configurations in the SESA Console

Using the Location Settings Network Entities tab as an example, this section describes several ways to perform common configuration tasks.

## Adding a table entry

There are three ways to add an entry to a table in the right pane:

- Select New from the Table menu.
- In the right pane, right-click an existing entry and, from the drop-down menu, select New.
- In the right pane, click New Network Entity.

Click Apply to register the new entry on any configuration window.

## Deleting a table entry

There are three ways to delete an entry from the Network Entities table:

- In the right pane, right-click the entry you want to delete and from the drop-down menu, select Delete Network Entity.
- In the right pane, highlight the entry you want to delete and from the Table menu, select Delete Network Entity.
- In the right pane, highlight the entry you want to delete and click Delete Network Entity.

Click Apply to register the change on any configuration window.

## Opening properties windows

There are three ways to open the Properties window for a network entity (to edit an existing configuration):

- In the right pane, right-click the entry you want to review and from the drop-down menu, select Properties.
- In the right pane, highlight the entry you want to review and from the Table menu, select Properties.
- In the right pane, highlight the entry you want to review and click Properties.

Changes are not active in the security gateway configuration until you select Activate from the Selection menu.

## Enabling or disabling features

The check boxes at the left of each entry in the Network Entities table reflect the enable status of each entity in the table. These check boxes can also be checked in the table without opening the Properties window.

# Administering security gateways through SESA

This chapter includes the following topics:

## About administering security gateways through SESA

This chapter describes the common tasks and administrative commands that you routinely perform when managing security gateways in SESA.

## Symantec Advanced Manager administrative commands

The Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1 uses a set of administrative commands to create and manage policy and location settings.

All administrative commands are accessed through the Configurations view tab in the SESA Console. The specific commands that you can access depend on your location in the left pane view.

- When Policies or Locations Settings folder are highlighted, you can access the following administrative commands from the Selection menu:
  - New Policy (or New Location Settings)
  - Show All Gateways
  - Refresh

  **Note:** You can also launch the Create a New Policy or Create a New Configuration for Location Settings wizards by clicking the link in the right pane with the appropriate left-pane Policies or Location Settings folder highlighted.

- When you drill-down and are viewing a customized Policy or Location Settings configuration in the left pane, the Selection menu changes and lets you access the following additional administrative commands:
  - Copy To
  - Discard Pending Changes
  - Delete
  - View Validation Report
  - Validate
  - Activate
  - Show Associated Gateways
    Also lets you associate policy and location settings to a security gateway and connect to a security gateway.
  - Show All Gateways
    Also lets you associate policy and location settings to a security gateway and connect to a security gateway.
  - Refresh

This section describes how to perform each command from the SESA Console.

## Creating a new policy setting

The New Policy command lets you create a new policy configuration.

### To create a new policy setting

1 In the SESA Console, from the Configurations view tab, in the left pane, right-click on Policies, and click **New Policy**.

You can also launch the Create a New Policy wizard from the Policies home page.

2 On the Create a New Policy wizard panel, click **Next**.

3 In the Policy Name panel, do the following:

- In the Name text box, type the name for the new policy.
  This name must be unique.
- In the description text box, type the description for the new policy.

4 Click **Next**.

5 In the Create New Policy panel, to create the policy, click **Finish**.

6 Once the new policy is created click **Close**.

## Creating a new location setting

The New Location Settings command lets you create a new location settings configuration.

### To create a new location setting

1 In the SESA Console, from the Configurations view tab, in the left pane, right-click on Location Settings and click **New Location Settings.**
  You can also launch the Create a New Set of Location Settings wizard from the Location Settings home page.

2 On the New Location Settings wizard panel, click **Next**.

3 On the Location Settings Name panel, do the following:

- In the Name text box, type the name for the new location.
  This name must be unique.
- In the description text box, type the description for the new location.

4 Click **Next**.

5 In the Initial Account panel, do the following:

- In the Account Name text box, type the name for the local administrator account for this set of location settings.
- In the Password text box, type the password for this account.
  The password should be at least 10 characters.
- In the Verify text box, type the password again.

6 Click **Next**.

7 In the Create New Set of Location Settings dialog box, to create the location settings, click **Finish**.

8 Click **Close**.

## Copying policy or location settings

The Copy To command copies the configuration of a current policy or location setting to a new policy or location setting.

### To copy a current policy or location settings

1. In the SESA Console, Configurations view tab, in the left pane, right-click the policy or locations settings you want to copy.
2. On the Selection menu, select **Copy To**.
3. On the Copy Settings to a New Policy wizard panel, click **Next**.
4. On the Policy Name wizard panel, do the following:
   - In the Name text box, type a new name for the new policy or location settings.
     The new name must be unique.
   - In the Description text box, type a description for the new policy or location setting.
5. Click **Next**.
6. On the Copy Policy wizard panel, click **Finish**.

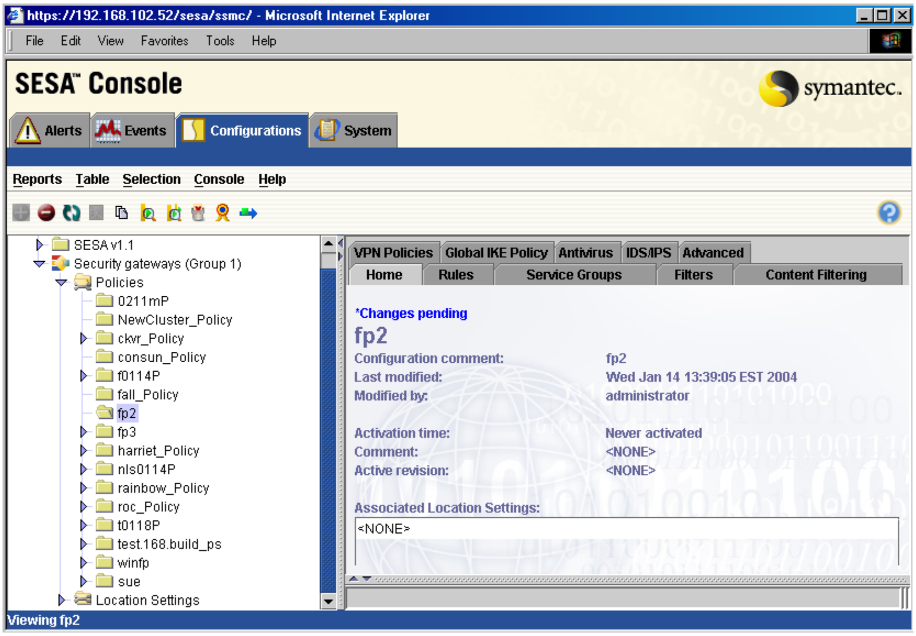
## Discarding pending changes

The Discard Pending Changes command deletes any changes in policy or location settings that have been configured but not yet applied.

### To discard changes to policy or location settings

1. In the SESA Console, on the Configurations view tab, in the left pane, right-click the policy or location settings for which you want to discard changes.

In the right pane, on the Home tab, a *Changes pending message displays when there are changes to the configuration that have not been activated.



*Changes pending

fp2

Configuration comment: fp2
Last modified: Wed Jan 14 13:39:05 EST 2004
Modified by: administrator

Activation time: Never activated
Comment: <NONE>
Active revision: <NONE>

Associated Location Settings:
<NONE>

2 On the Selection menu, click **Discard Pending Changes**.

3 When prompted, confirm that you want to discard the changes to the policy or location by clicking **Yes**.

# Deleting policy or location settings

The Delete command lets you deletes a policy or location setting from the selected configuration.

### To delete a policy or location settings

1 In the SESA Console, Configurations tab, in the left pane, right-click on the policy or location settings you want to delete.

2 On the Selection menu, select **Delete**.

3 In the Select an Option dialog box, confirm that you want to delete the policy or location settings by clicking **Yes**.

# Viewing a validation report

The View Validation Report command displays a report that summarizes the results of a validation and activation attempt for a given security gateway.

**To view the validation report for a security gateway**

1. In the SESA Console, on the Configurations View tab, in the left pane, right-click either a policy or location settings.
2. On the Selection menu, click **View Validation Report.**
3. To view the contents of the report, click the security gateway name, that appears underlined and in blue text.

# Validating policy or location settings

The Validate command launches the Validate Changes Wizard. The Validate Changes Wizard lets you validates the changes you have made with other configuration information.Validation serves two purposes: it ensures that once a configuration is applied to a security gateway, that all references between the policy, location, and system settings can be resolved. Second, it provides a means to periodically check the validity of a policy or location setting throughout the configuration or reconfiguration cycle.

Policy configurations use logical references defined within location configurations, forming a relationship or link between the two configurations. Before you can activate a policy-location pair, each configuration must be validated against the other, and the two configurations must be validated against the security gateway’s system settings.

When validating a policy, you are prompted to include associated location settings pending changes, if any, in the validation.

When validating location settings, if there are pending changes in the associated policy, you are advised to validate through the policy. Otherwise, the pending changes in the policy will not be included in the validation.

## Determining associations

The Validate Changes Wizard considers both policy-location associations and target-configuration associations when validating. For example, you must examine all location settings that are associated with the policy being validated. If any of these location settings have changes pending, you are prompted to validate the new versions of the location settings.

Since the wizard validates policies and locations against each security gateway’s system settings, it must also determine which security gateways use the selection policy or location settings, whether directly associated or by inheritance.

### Validate Changes Wizard panels

The panels that are presented by the Validate Changes Wizard include:

- Welcome to the Validate Changes Wizard panel
  Contains a description of the functions performed by the Validate Changes Wizard.
- Validation panel
  Displays the status of the validation in real-time. As each component is validated, a progress indicator updates and you are prompted when the validation completes. If the validation is successful, you are prompted to activate the configuration changes.

**To validate changes**

1. In the SESA Console, on the Configurations view tab, in the left pane, right-click on the policy or location setting that you want to validate.
2. On the Selection menu, click **Validate**.
3. In the Welcome to the Validate Changes Wizard panel, click **Next**.
4. In the Validation panel, the progress bar at the top indicates the status of the validation process.
5. If the process completes successfully, you are asked whether you want to activate the changes.
   - To activate the changes now, click **Yes**.
   - To activate the changes later, click **No**.
6. To exit the Validate Changes Wizard, click **Close**.

## Activating policy or location settings

The Activate command validates and activates the changes you have made with all other existing configuration information.

The panels that are presented by the Activate Changes Wizard include:

- Welcome to Activate Changes Wizard panel
  Contains a description of the functions performed by the Activate Changes Wizard.

- Revision Comment panel
  Displays a text field that lets you enter a description of the configuration changes.
- Validation panel
  Displays the status of the validation and activation in real time. As each component is validated, a progress indicator updates and informs you when the activation is complete.

**To activate changes**

1. In the SESA Console, from the Configurations view tab, in the left pane, right-click the policy or location setting that you want to activate.
2. On the Selection Menu, click **Activate**.
3. In the Welcome to the Activation Changes wizard panel, click **Next**.
4. In the Revision Comment dialog box, in the Activation Comment text box, type an activation comment.
   This can be the reason for the changes or the date of the change or some other means of tracking the change.
5. Click **Next**.
6. In the Validation dialog box, the progress bar at the top indicates the status of the activation process.
   If the process completes successfully, click **Close**.

## Viewing security gateways

The Selection menu includes two commands that each provide a different view of security gateways:

- Show Associated Gateways
  Lists security gateways that share either policies or location settings in your configuration.
- Show All Gateways
  Lists all security gateways that are available to share either policies or location settings in your configuration.

From the Show Associated Gateways or Show All Gateways dialog box, you can view a list of security gateways that currently share configuration settings or a list of all security gateways that are available to share configuration settings.

## Viewing all or associated security gateways

You can view all or associated security gateways for a specific policy or location setting.

### To show associated gateways

1 In the SESA Console, on the Configuration view tab, in the left pane right-click the policy or location setting whose association you want to view.

2 On the Selection drop-down menu, click **Show Associated Gateways.**

3 In the Show Associated Gateways dialog box, you can view the security gateways that share policies or location settings.

### To show all gateways

1 In the SESA Console, on the Configuration view tab, in the left pane right-click the policy or location setting whose gateways you want to view.

2 On the Selection menu, click **Show All Gateways.**

3 In the Show All Gateways dialog box, you can view all available security gateways.

## Associating security gateway configurations

You associate policies and location settings with security gateways or with organizational units using the Associate Wizard, which is launched from the Show Associated Gateways or Show All Gateways dialog box.

You can also connect to the Security Gateway Management Interface (SGMI) of the selected security gateway from the Show Associated Gateways or Show All Gateways dialog box. The SGMI is the browser-based, local interface of the security gateway.

### To associate a security gateway with Policy and Location Settings

1 In the SESA Console, on the Configuration view tab, in the left pane right-click the policy or location setting whose security gateways you want to view.

2 On the Selection menu, click **Show All Gateways**.

3 In the Show All Gateways dialog box, highlight the security gateway and click **Associate**.

4 On the Associate Configuration with a Security Gateway wizard panel, click **next**.

5 On the Select Configuration wizard panel, do the following:

- In the New Policy drop-down drop-down list, select the new policy to apply to this security gateway.

- In the New Location settings drop-down list, select the new location setting to apply to this security gateway.

6 Click **Next**.

7 On the Configuration Information wizard panel, review your selection.

8 Click **Next**.

9 On the Change Configuration wizard panel, to change the configuration, click **Finish**.

#### To associate a security gateway with an organizational unit

1 In the SESA Console, on the Configuration view tab, in the left pane right-click the policy or location setting whose security gateways you want to view.

2 On the Selection menu, click **Show All Gateways** or **Show Associated Gateways**.

3 In the Show All Gateways or Show Associated Gateways dialog box, on the Organizational Unit tab, highlight the organizational unit and click **Associate**.

4 On the Associate Configuration with an Organizational Unit wizard panel, click **next**.

5 On the Select Configuration wizard panel, do the following:

- In the New Policy drop-down list, select the new policy to apply to this organizational unit.
- In the New Location settings drop-down list, select the new location setting to apply to this organizational unit.

6 Click **Next**.

7 On the Configuration Information wizard panel, review your selection.

8 Click **Next**.

9 On the Change Configuration dialog box, to change the configuration, click **Finish**.

10 If the association finishes without incident, click **Close**.

### Connecting to a security gateway

You can connect to the Security Gateway Management Interface (SGMI) of the selected security gateway from the Show Associated Gateways or Show All Gateways dialog box. The SGMI is the browser-based, local interface of the security gateway.

**To connect to a security gateway**

- From the Show Associated Gateways dialog box, highlight the security gateway to which you want to connect and click **Connect**.

## Refreshing the display

The Refresh command is available on all of the Configuration view tab drop-down menus. Clicking the Refresh selection refreshes the current GUI display.

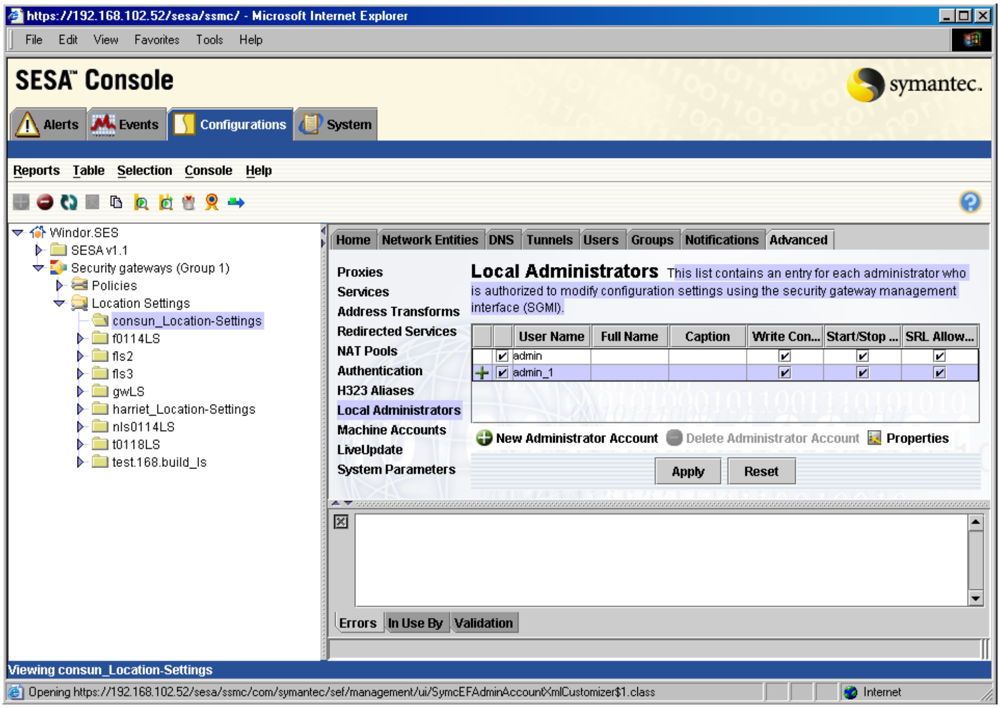
# Creating local administrator access accounts

You can create additional local administrator accounts to delegate administrator responsibility for the security gateway. After creating the account, you can control a local administrator's access to security gateway services using the Properties windows.

**To configure a local administrator**

1. In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Local Administrators**.



**Local Administrators** This list contains an entry for each administrator who is authorized to modify configuration settings using the security gateway management interface (SGMI).

| | | User Name | Full Name | Caption | Write Con... | Start/Stop ... | SRL Allow... |
|---|---|---|---|---|---|---|---|
| | ☑ | admin | | | ☑ | ☑ | ☑ |
| + | ☑ | admin_1 | | | ☑ | ☑ | ☑ |

Opening https://192.168.102.52/sesa/ssmc/com/symantec/sef/management/ui/SymcEFAdminAccountXmlCustomizer$1.class

3 Click **New Administrator Account**.

4 In the Properties window, on the General tab, do the following:

Enable
To enable the local administrator, check **Enable**.
This feature is enabled by default.

User Name
Type the name of the local administrator.
The name cannot contain spaces.

Full Name
Type the full name of the local administrator.
This can be used to distinguish between similar user names

Password
Type the local administrator's password. The password appears as a string of asterisk (*) characters.

Confirm Password
Type the local administrator's password again for confirmation. The password does not appear in clear text.

Last password change
The Last password change field indicates the last time the password was changed. This field is read-only.

| | |
|---|---|
| Caption | Type a brief description of the local administrator. |

5. On the Configuration Privileges tab, do the following:
   - Under Administrator privileges, to permit the local administrator to make changes to the security gateway configuration, check **Write Configuration Allowed**.

     This check box is checked by default. If you uncheck Write Configuration Allowed, all the write check boxes are also unchecked automatically. They can then be checked independently of the Write Configuration Allowed check box.
   - Under Restrictions on the above, you can limit the privileges of the local administrator by unchecking one or more check boxes.

     For example, to prohibit the local administrator from changing the DNS configuration on the security gateway, uncheck **Write DNS Allowed**.

     All check boxes default to the checked state.
6. On the Maintenance Privileges tab, uncheck the check boxes corresponding to the privileges you wish to withhold from the local administrator.

   For example, if you want to prohibit the local administrator from rebooting the security gateway, uncheck **Reboot Allowed**. All check boxes default to the checked state.
7. On the Restrict to Address tab, you can add address restrictions to the local administrator account by typing an address in the Address text box and clicking **Add**.
8. On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
9. Click **OK**.
10. In the Local Administrator table, click **Apply**.
11. On the Selection Menu, click **Activate**.

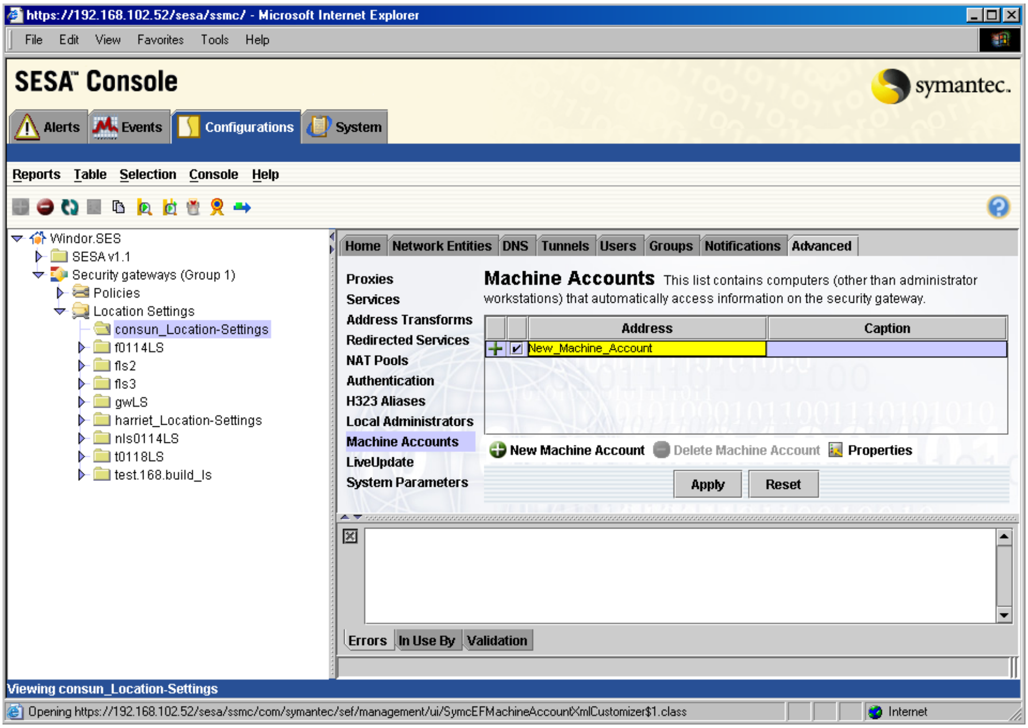
    The local administrator is now configured for use.

# Configuring machine accounts

This list contains entries for computers that are authorized to automatically retrieve or update information on the security gateway (for example, to add blacklist entries).

### To configure a machine account

1 In the SESA Console, in the left pane, click **Location Settings**.



**Machine Accounts** This list contains computers (other than administrator workstations) that automatically access information on the security gateway.

|  |  | Address | Caption |
|---|---|---|---|
| + | ☑ | New_Machine_Account |  |

Viewing consun_Location-Settings

Opening https://192.168.102.52/sesa/ssmc/com/symantec/sef/management/ui/SymcEFMachineAccountXmlCustomizer$1.class

2 In the right pane, on the Advanced tab, click **Machine Accounts**.

3 Click **New Machine Account**.

4 In the Properties window, on the General tab, do the following:

Enable
To enable the machine account, check **Enable**. This feature is enabled by default.

Address
In the Address text box, type the address of the machine account.

Password
In the Password text box, type the password for the machine account. The password appears as string of asterisk (*) characters.

Confirm Password
In the Confirm Password text box, type the machine account password again for confirmation. The password does not appear in clear text

| | |
|---|---|
| Last Password Change | In the Last Password Change text box, the date of the most recent password change is displayed. |
| Caption | In the Caption text box, type a brief description of the machine account |

5 On the Privileges tab, do the following:

- To let the machine account view system log files, check **View Log**.
  This check box is checked by default.
- To let the remote machine account to access system log files, check **Manage Log**.
  This check box is checked by default.
- To let the remote machine account add entries to the Blacklist file, check **Manage Blacklist**.
  This check box is checked by default.

6 On the Blacklist tab, do the following:

- In the Port text box, type the port number to use to connect to the Blacklist.
  The default is port 426.
- In the Timeout text box, type the Blacklist timeout value in minutes.
  The default is 1440 minutes (24 hours).

7 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

8 Click **OK**.

9 Click **Apply**.

10 On the Selection Menu, click **Activate**.
The machine account is now configured for use.

# Configuring process restart

The process restart feature lets daemons that have stopped running as the result of a system crash or other unintentional incident automatically restart themselves without having to manually restart them. This prevents traffic, normally handled by that daemon, from being blocked until the daemon is able to be manually restarted.

Process restart is enabled by default and includes the following configurable parameters:

Interval between scans — Specifies the number of seconds that are allowed to elapse in between scans for active processes. The default is 10 seconds. Increasing this default reduces the amount of CPU time consumed for performing restart checks but increases the time it takes to detect failed daemons.

Maximum number of retries — Specifies the number of times a process restart on a daemon is attempted in a given period before the restart function stops trying to restart the process. The default is 10 retries. This parameter is used in conjunction with the Retry period parameter to control the restart rate threshold.

Retry Period — Specifies the number of seconds that are allowed to elapse between the time a process restart on a daemon is first attempted to when the restart functions stops trying to restart the process. The default is 3600 seconds (one hour). This parameter is used in conjunction with the Maximum number of retries parameter to control the restart rate threshold.

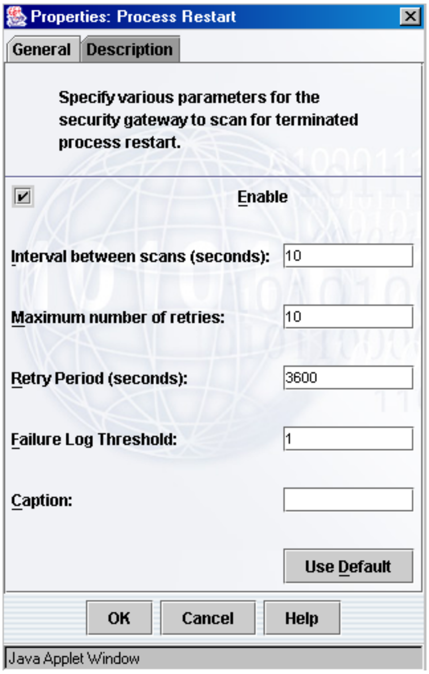
Failure Log Threshold — Controls the number of times the restart function will log a message from a particular process failing to restart. The default is one. Once a process has failed to restart this number of times, no further messages appear in the logfile about this process not restarting. This does not affect how many times a process that has been successfully restarted is logged.

### To configure process restart

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Services**.

3 In the Services table, click **Process Restart**, and then click **Properties**.



Specify various parameters for the security gateway to scan for terminated process restart.

☑ Enable

Interval between scans (seconds): 10

Maximum number of retries: 10

Retry Period (seconds): 3600

Failure Log Threshold: 1

Caption:

4 On the General tab, do the following:

Enable

To enable process restart, check **Enable**. This feature is enabled by default.

This feature is enabled by default.

Interval between scans

Type the time interval (in seconds) between scans for stopped processes.

The default is 10 seconds.

Maximum number of retries

Type the maximum number of retries attempted during the retry period.

The default is 10 retries.

| | |
|---|---|
| Retry period | Type the length of the retry period in seconds.<br>The default is 3600 seconds (one hour). |
| Failure Log Threshold | Type the number of times the restart function will log a failed restart of a particular process.<br>The default is one. This value does not affect the number of times a successful restart is logged. |
| Caption | Type a brief description of the process restart service. |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

7 In the Services window, click **Apply**.

8 On the Selection Menu, click **Activate**.
Process restart is now configured for use.

# Network security best practices

Symantec encourages all users and administrators to adhere to the following basic security practices:

- Turn off and remove unneeded services.
  By default, many operating systems install auxiliary services that are not critical, such as an FTP server, telnet, and a Web server. These services are avenues of attack. If they are removed, blended threats have less avenues of attack and you have fewer services to maintain through patch updates.
- If a blended threat exploits one or more network services, disable, or block access to, those services until a patch is applied.
- Turn off unnecessary network services.
- Automatically update your antivirus at the gateway, server, and client.
- Always keep your patch levels up-to-date, especially on computers that host public services and are accessible through the security gateway, such as HTTP, FTP, mail, and DNS services.
- Enforce a password policy. Complex passwords make it difficult to crack password files on compromised computers. This helps to prevent or limit damage when a computer is compromised.
- Configure your email server to block or remove email that contains file attachments that are commonly used to spread viruses, such as .vbs, .bat, .exe, .pif and .scr files.

- Hackers commonly break into a Web site through known security holes, so make sure your servers and applications are patched and up to date.
- Eliminate all unneeded programs.
- Scan network for common backdoor services - use intrusion detection systems, vulnerability scans, antivirus protection.
- Isolate infected computers quickly to prevent further compromising your organization. Perform a forensic analysis and restore the computers using trusted media.
- Train employees not to open attachments unless they are expecting them. Also, do not execute software that is downloaded from the Internet unless it has been scanned for viruses. Simply visiting a compromised Web site can cause infection if certain browser vulnerabilities are not patched.

Additional information, in-depth white papers, and resources regarding enterprise security solutions can be found by visiting the Symantec Enterprise Solutions Web site at http://enterprisesecurity.symantec.com.

Section 2

# Configuring security gateways

This section includes the following topics:

- Understanding security gateway concepts
- Configuring DNS
- Enabling firewall access
- Controlling service access
- Controlling user access
- Configuring secure VPN connections
- Preventing attacks

Chapter 5

# Understanding security gateway concepts

This chapter includes the following topics:

## About security gateway concepts

This chapter describes common security gateway components that are configured for security gateways using Symantec Advanced Manager.

Common security gateway components include:

- Network entities
- Users
- User groups
- Service groups

These are configured in Policies and Location Settings for each managed security gateway.

# Configuring network entities

A network entity is a host or group of hosts on the Internet or on your private network. You must define network entities for computers that pass data through your system. You can define several different types of network entities, such as hosts, groups, subnets, and domains.

The following network entity types are supported:

- Configuring host network entities
- Configuring subnet network entities
- Configuring domain name network entities
- Configuring security gateway network entities
- Configuring group network entities
- Configuring VPN security entities

**Note:** During installation, a subnet network entity called Universe is created. Universe specifies the set of all machines inside and outside the system. Its address is 0.0.0.0. You can use this entity to define a rule that allows any source and/or destination to pass through or connect to the security gateway.

### To configure a network entity

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Network Entities tab, click **New Network Entity,** and then select the type of entity you want to create.
3. Click **Properties**.
4. Configure the network entity properties as described in the following sections.
   The information you will need to provide depends on the type of network entity you are creating.
   For each entity type, the Read only text box indicates whether the entity can be modified. This value is located on the General tab of the Properties window. If the Read only value is true (as in the Universe entity), the entity is read-only and cannot be modified.

## Configuring host network entities

A host network entity is a single computer, located either inside or outside of the security gateway. You can specify a host using its IP address in dotted quad format (for instance, 192.168.1.3 or 205.14.76.4) or by its DNS resolvable name.

As part of the security planning process, you should identify hosts that have specialized uses in your network. Such hosts may be inside or outside of the security gateway. Examples include the following:

- Mail server
- A World Wide Web server (www)
- An inside or outside host running a custom database application to which you must permit access (an authentication server)
- An internal or external computer that requires special privileges

When defining these hosts, you should assign names and comments that make them easy to identify. Doing this makes it easier to interpret the meaning of information captured in the log files.

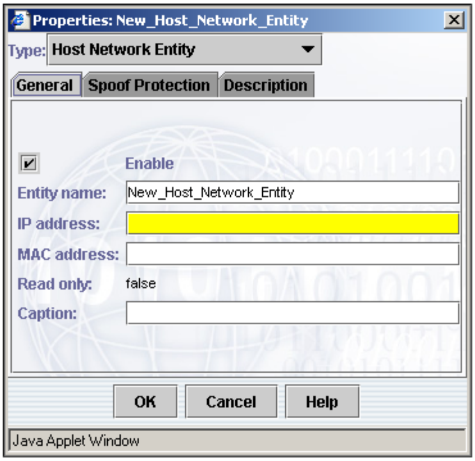
The Description tab provided in the Properties window is a good place to log changes made to network entities.

### To configure a Host Network Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Host Network Entity**.

3 Click **Properties**.



Properties: New_Host_Network_Entity

Type: Host Network Entity

☑ Enable
Entity name: New_Host_Network_Entity
IP address:
MAC address:
Read only: false
Caption:

4 In the Properties window, in the Type drop-down list box, the network entity type you selected is displayed.

You can change the entity type, but the default entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**.<br>This box is checked by default. |
| Entity name | Type a name for the network entity. |
| IP address | In the IP address text box, type the IP address or fully-qualified DNS name of the host. |
| MAC address | In the MAC address text box, optionally type the MAC address of the host. Typing a MAC address associates the IP address with a specific network adapter for added security |
| Caption | In the Caption text box, type a brief description of the host. |

6 On the Spoof Protection tab, in the Excluded interfaces list, select the interface through which you expect to access the host and click the right-arrow >> button to move it to the Included interfaces list.

Packets arriving on another interface will be rejected

7 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

8 Click **OK**.

9 In the Network Entities window, click **Apply**.

10 On the Selection Menu, click **Activate**.

The host entity is now configured for use.

## Configuring subnet network entities

A subnet entity is a subnet address, including the subnet mask.

For instance 192.168.1.0, mask 255.255.255.0, is defined in this section as a subnet entity.

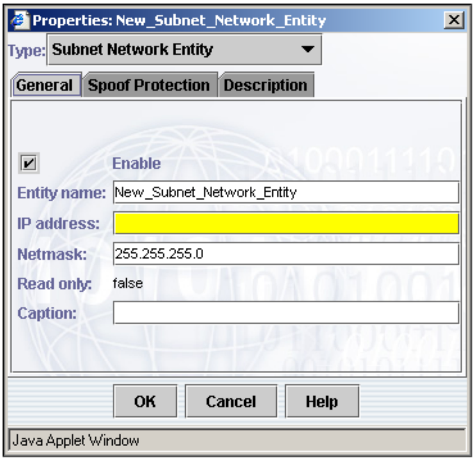
You will typically use subnet entities to define whole networks, or subnetworks within a particular IP address range.

### To configure a Subnet Network Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Subnet Network Entity**.

3 Click **Properties**.



Properties: New_Subnet_Network_Entity

Type: Subnet Network Entity

☑ Enable

Entity name: New_Subnet_Network_Entity

IP address:

Netmask: 255.255.255.0

Read only: false

Caption:

4 In the Properties window, the Type drop-down list displays the network entity type you selected.
You can change the entity type, but the entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**.<br>This box is checked by default. |
| Entity name | Type a name for the network entity. |
| IP address | In the IP address text box, type the IP address of the subnet. |
| Netmask | In the Netmask text box, type the subnet mask. |
| Caption | In the Caption text box, type a brief description of the subnet. |

6 On the Spoof Protection tab, in the Excluded interfaces list, select the interface through which you expect to access the subnet and click the right-arrow >> button to move it to the Included interfaces list.

Packets arriving on another interface will be rejected.

7 On the Description tab, you can add a more detailed description than you typed in on the General tab the Caption text box.

8 Click **OK**.

9 In the Network Entities window, click **Apply**.

10 On the Selection Menu, click **Activate**.

The subnet entity is now configured for use.

## Configuring domain name network entities

A domain name network entity is a group of computers sharing the network portion of their host names, for example symantec.com or microsoft.com. Domain name network entities are registered within the Internet community. Registered domain network entities end with an extension such as .com, .edu, or .gov to indicate the type of domain, or a country code such as .jp (Japan) to indicate the location.

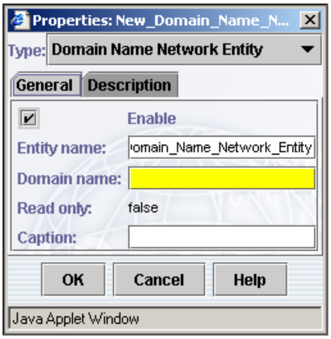
Domain name network entities are useful if there are special resources at a site, or if users at that site need access behind the system. A rule using a domain name network entity applies to any computer at that domain.

### To configure a Domain Name Network Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Domain Name Network Entity**.

3 Click **Properties**.



Properties: New_Domain_Name_N...

Type: Domain Name Network Entity

☑ Enable

Entity name: omain_Name_Network_Entity

Domain name:

Read only: false

Caption:

4 In the Properties window, the Type drop-down list displays the network entity type you selected.
You can change the entity type, but the entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**.<br>This box is checked by default. |
| Entity name | In the Entity name text box, type a name for the network entity. |
| Domain name | In the Domain name text box, type a name for the domain. |
| Caption | In the Caption text box, type a brief description of the network entity. |

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Network Entities window, click **Apply**.

9 On the Selection Menu, click **Activate**.
The domain entity is now configured for use.

## Configuring security gateway network entities

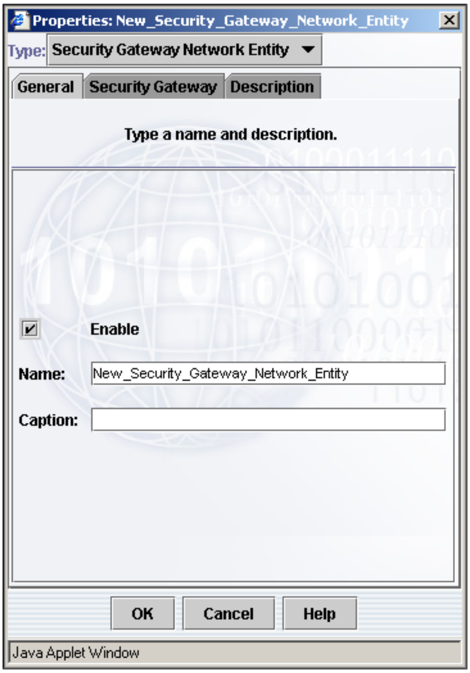
You can create security gateway network entities to serve as the local or remote gateway for a VPN tunnel.

### To configure a Security Gateway Network Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Security Gateway Network Entity**.

3 Click **Properties**.



Properties: New_Security_Gateway_Network_Entity

Type: Security Gateway Network Entity

Type a name and description.

☑ Enable

Name: New_Security_Gateway_Network_Entity

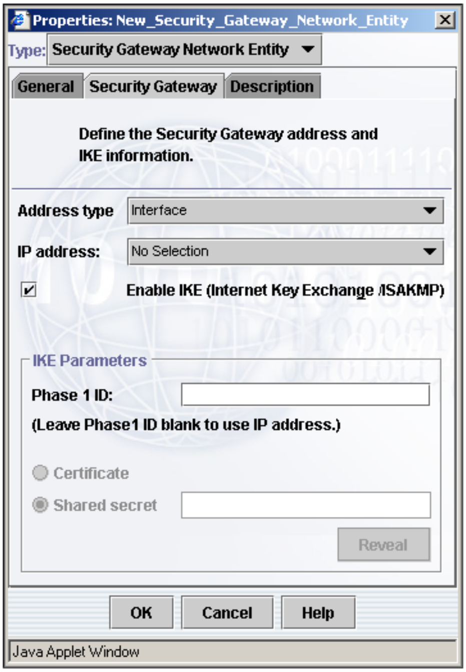
Caption:

4 In the Properties window, the Type drop-down list displays the network entity type you selected.
You can change the entity type, but the entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**.<br>This box is checked by default. |
| Name | In the Name text box, type a name for the network entity. |
| Caption | In the Caption text box, type a brief description of the network entity. |

6 On the Security Gateway tab, do the following:



Properties: New_Security_Gateway_Network_Entity

Type: Security Gateway Network Entity

General | Security Gateway | Description

Define the Security Gateway address and IKE information.

Address type: Interface

IP address: No Selection

☑ Enable IKE (Internet Key Exchange /ISAKMP)

IKE Parameters

Phase 1 ID:

(Leave Phase1 ID blank to use IP address.)

○ Certificate

● Shared secret

Address type

In the Address type drop-down list, select the type of address you want to use for the security gateway.

The choices are: Interface, VIP, IP address, and Domain Name.

IP address

In the IP address drop-down list, select the address.

- If you selected Interface, the selections here are the configured network interfaces.
- If you selected VIP, the selections here are the configured VIPs.
- If you selected IP address or Domain Name, type an address or name in this text box.

Enable IKE (Internet Key Exchange/ISAKMP)

It enable the use of IKE policies on tunnels to the security gateway, check **Enable IKE (Internet Key Exchange ISAKMP)**.

This feature is enabled by default.

7 Under IKE Parameters, do the following:

| | |
|---|---|
| Phase 1 ID | In the Phase 1 ID text box, type the Phase 1 ID for tunnel negotiation. |
| Certificates | If you are using certificates, click **Certificate**.<br>This option is greyed out if you are using an interface or VIP as the Address type |
| Share secret | If you are using a shared secret, click **Shared Secret** and, in the Shared Secret text box, type the shared secret used for tunnel negotiations.<br>The shared secret must be between 20 and 63 printable characters. Braces ({}) cannot be used. The shared secret appears as a string of asterisks (*) unless you click **Reveal**. When you click Reveal, the button becomes a Hide button.<br>This option button is greyed out if you are using an interface or VIP as the Address type |

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the Network Entities window, click **Apply**.

11 On the Selection Menu, click **Activate**.
The security gateway entity is now configured for use.

## Configuring group network entities

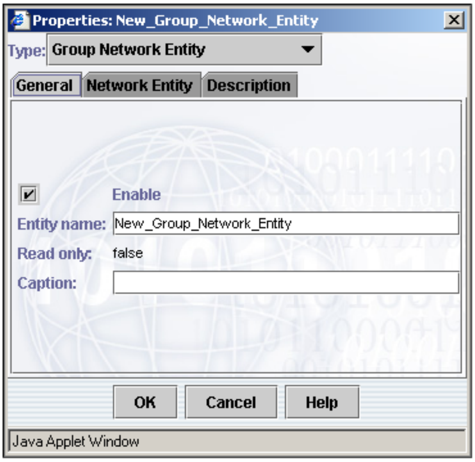
A group entity is a collection of other network entities, such as hosts, domains, and subnets.

### To configure a Group Network Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Group Network Entity**.

3 Click **Properties**.



Properties: New_Group_Network_Entity

Type: Group Network Entity

☑ Enable

Entity name: New_Group_Network_Entity

Read only: false

Caption:

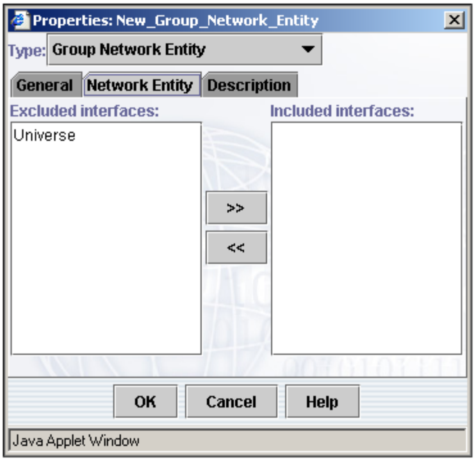
4 In the Properties window, the Type drop-down list displays the network entity type you selected.

You can change the entity type, but the entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**.<br>This box is checked by default. |
| Entity name | Type a name for the entity. |
| Caption | Type a brief description of the entity. |

6 On the Network Entity tab, select network entities from the Excluded interfaces list and click the right-arrow >> button to move them into the Included interfaces list to add them to the group entity.



7 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

8 Click **OK**.

9 In the Network Entities window, click **Apply**.

10 On the Selection Menu, click **Activate**.
The group entity is now configured for use.

## Configuring VPN security entities

You can create VPN security network entities to serve as the endpoints for VPN tunnels between security gateways and Symantec Client VPN users. A VPN security network entity defines an entity/security gateway pairing that becomes selectable in the Local and Remote endpoint drop-down menus when you construct VPN tunnels.

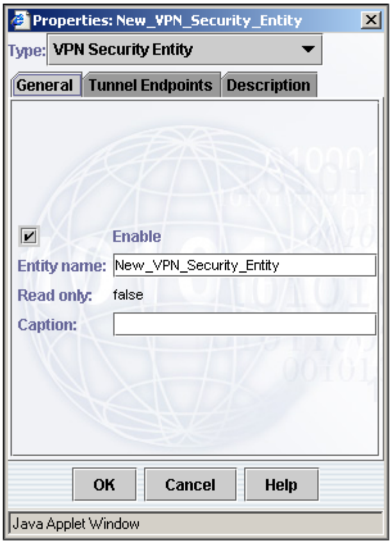
Using VPN security network entities when defining a tunnel lets you create fewer tunnels. In other words, rather than having to create a separate tunnel on the security gateway for every entity behind it that needs one, you can pair several entities, together with the appropriate network interface, into VPN security network entities. Based on the VPN security pairings that you configure, tunnel traffic is routed to the appropriate entity within the VPN security network entity.

### To configure a VPN Security Entity

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Network Entities tab, click **New Network Entity > VPN Security Entity**.

3 Click **Properties**.



Properties: New_VPN_Security_Entity

Type: VPN Security Entity

☑ Enable

Entity name: New_VPN_Security_Entity

Read only: false

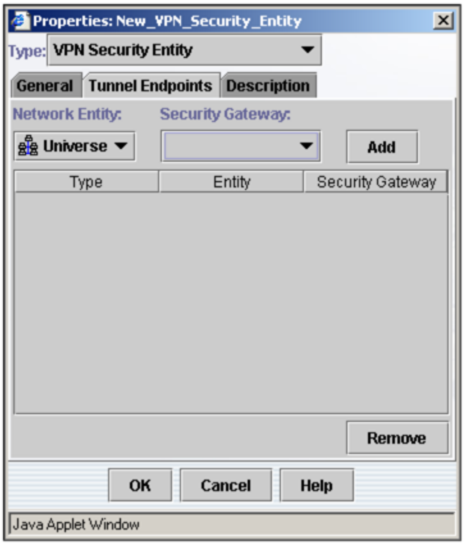
Caption:

4 In the Properties window, the Type drop-down list displays the network entity type you selected.
You can change the entity type, but the entity name remains.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the network entity, check **Enable**. |
| Entity name | Type a name for the network entity. |
| Caption | Type a brief description of the network entity. |

6 On the Tunnel Endpoints tab, select a network entity/security gateway pairing from the drop-down lists to define the endpoint of the tunnel.



Type: VPN Security Entity

Network Entity: Universe

7 Click **Add**.

8 To remove a pairing from the table, highlight it, and then click **Remove**.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the Network Entities window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The VPN security entity is now configured for use.

# Configuring users

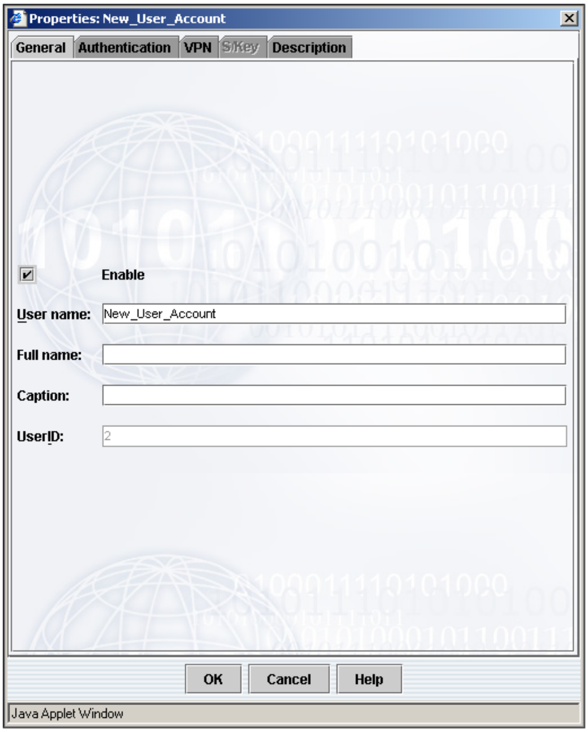
The Users tab lets you define various mechanisms to authenticate users trying to connect directly to the security gateway or through secure tunnels.

You can define user accounts to control access to your networks by specific users. A user is defined by a unique user name and user ID.

### To configure users

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Users tab, click **New User Account**.



☑ Enable

User name: New_User_Account

Full name:

Caption:

UserID: 2

3 On the General tab, do the following:

Enable
To enable the user, check **Enable**.

This box is checked by default.

User name
Type a name for the user.

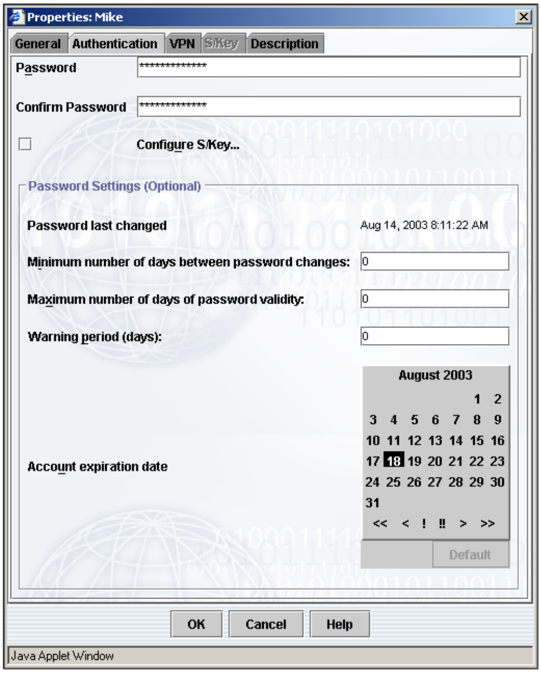
Full name
Type the full name of the user. This entry helps you to differentiate between users with similar names.

Caption
Type a brief description of the user.

UserID
The user's ID is displayed.

User IDs are automatically assigned in order as user accounts are created.

4 On the Authentication tab, do the following:



Password **************

Confirm Password **************

□ Configure S/Key...

Password Settings (Optional)

Password last changed Aug 14, 2003 8:11:22 AM

Minimum number of days between password changes: 0

Maximum number of days of password validity: 0

Warning period (days): 0

Account expiration date

Password

In the Password text box, type a password for the new user. Passwords must have at least 10 characters, must contain upper and lowercase letters, and at least one punctuation mark.

You can change the user password requirements by clicking on System Parameters on the Advanced Location Settings tab.

Confirm Password

Type the user password again to confirm it.

Configure S/Key

To enable the use of S/Key authentication with the new user, check **Configure SKey**.

Password last changed

In the Password Settings (optional) field, Password last changed displays the last date that the password was changed.

Minimum number of days between password changes

Type the number of days before a user password must be changed.

The default is 0, which means the user will not need to change the password.

Maximum number of days of password validity

Type the number of days the user password is valid.

The default is 0, which means the user password will not expire.

Warning period (days)

Type the number of days that the user will be warned before the password expires.

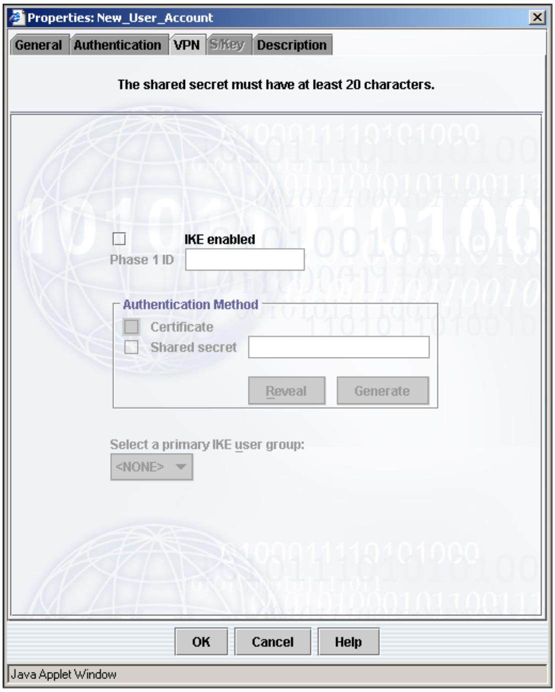
The default is 0, which means no warning will be issued.

Account expiration date

In the account expiration calendar, select the date on which you want the user account to expire.

The default is today's date.

5 On the VPN tab, do the following:



The shared secret must have at least 20 characters.

□ IKE enabled

Phase 1 ID

Authentication Method

□ Certificate

□ Shared secret

Select a primary IKE user group:

<NONE>

IKE enabled

Check this box to enable IKE for Phase 1 negotiations. This check box is unchecked by default. When it is checked, the user can act as the remote endpoint of a VPN tunnel.

Phase1 ID

If you checked **IKE enabled**, in the Phase1 ID text box, type a Phase 1 ID for first key tunnel negotiations with the local security gateway.

This entry can be the IP address of the security gateway, the fully-qualified DNS name of the security gateway, or the user name. It defaults to the user name. However, it must match the Phase 1 ID used in the Security Gateway network entity Properties window.

Authentication Method

If the user is acting as a remote VPN tunnel endpoint, in the Authentication Method box, choose one of the following:

- To give the user permission to use certificates, check **Certificate**.
- To give the user permission to use a shared secret to authenticate, check **Shared secret** and type the shared secret in the text box. The shared secret must be at least 20 characters in length.

Both are unchecked by default. You can give the user permission to use either authentication method by checking both check boxes.

Reveal

To display the shared secret, click **Reveal**.

When you click Reveal, the shared secret appears in clear text and the button becomes a Hide button.

Generate

To generate a shared secret, click **Generate.**

Select a primary IKE user group

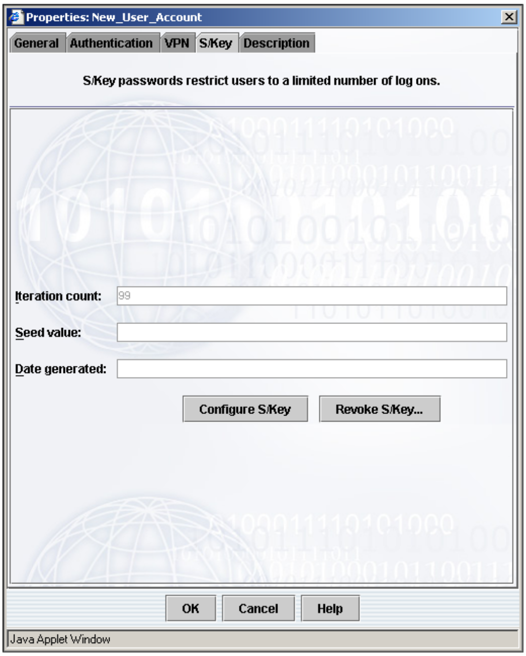
In the Select a primary IKE user group drop-down list, select a primary IKE user group.

This drop-down list contains the names of all the groups of which the user is a member. If this is a new user, you must go to the Groups window and add this user to the IKE user group before it appears in this drop-down list.

An IKE-enabled user must belong to one IKE user group (unless you are creating a tunnel directly to the user rather than to a user group, in which case you can select <NONE> here). This is not, however, a recommended configuration.

If authenticating with a shared secret, the primary IKE group is the only group this user is placed into. If authenticating with a certificate, all groups this user is a member of are checked for a best fit group. If no best fit is found, the user is resolved to the primary IKE group.

6 On the S/Key tab, to configure S/Key authentication, click **Configure S/Key**.



S/Key passwords restrict users to a limited number of log ons.

Iteration count: 99

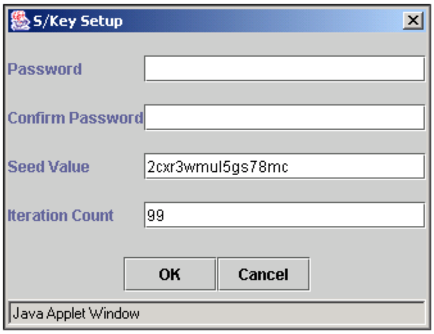
Seed value:

Date generated:

Java Applet Window

7 In the S/Key Setup dialog box, in the Password text box, type a password. S/Key passwords must be at least ten characters in length and must contain both upper and lower case letters and at least one numeral and at least one punctuation mark.

You can change the S/Key password requirements by clicking on System Parameters on the Advanced Location Settings tab.



Password

Confirm Password

Seed Value 2cxr3wmul5gs78mc

Iteration Count 99

Java Applet Window

8 In the Confirm Password text box, type the password again.

9 In the Seed value text box, a randomly-generated value appears.

10 In the Iteration count text box, type the iteration count for S/Key authentication.

   Each time the user logs in, a new password is generated and the iteration count is decremented by one. The default is 99.

11 Click **OK**.

   When you return to the S/Key tab, the Seed value text box contains a randomly-generated value. For connections requiring S/Key authentication, the security gateway prompts the user with this seed value and the iterative count. The user enters these values, along with the password, to an S/Key password generation program running locally. The password generator responds with a six-word, one-time password string.

12 To clear the Seed value and Date generated text boxes, click **Revoke S/Key**.

13 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

14 Click **OK**.

15 In the Users window, click **Apply**.

16 On the Selection Menu, click **Activate**.

   The user is now configured for use.

# Configuring user groups

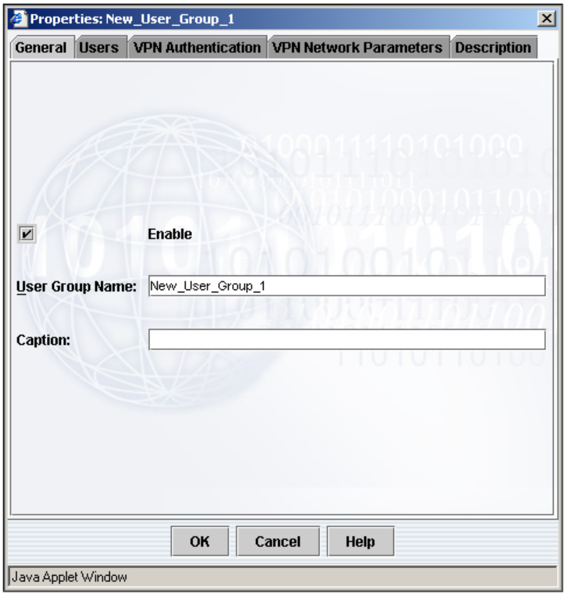
Combining users under common groups is an easy way to assign access permissions to VPN clients. The User Groups tab lets you do this.

### To configure user groups

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Groups tab, click **New User Group**.

3 Click **Properties**.



☑ Enable

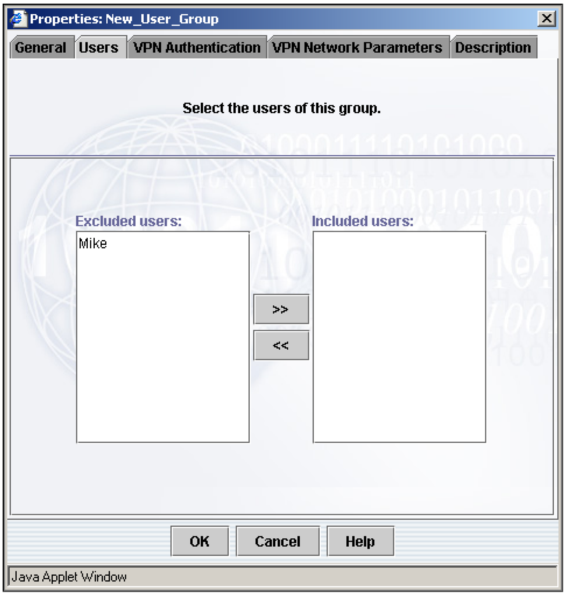
User Group Name: New_User_Group_1

Caption:

4 In the Properties window, on the General tab, do the following:

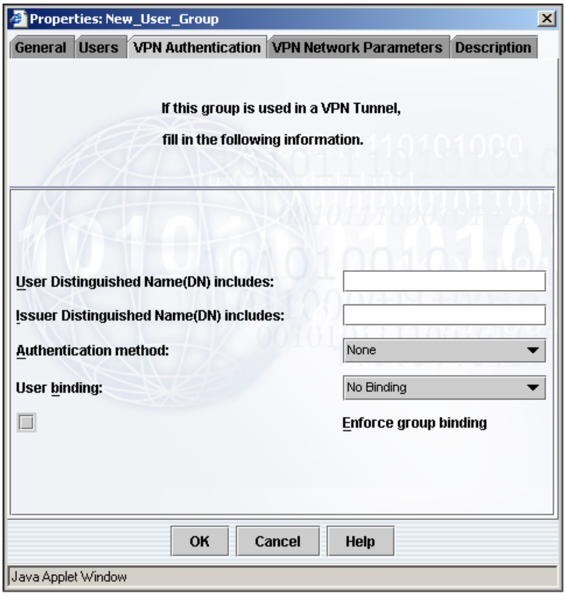
| | |
|---|---|
| Enable | To enable the user group, check **Enable**. This check box is checked by default. |
| User Group Name | Type the name of the user group. The name cannot contain spaces. |
| Caption | Type a brief description of the user group. |

5 On the Users tab, in the Excluded users list, select the users you want to include in the user group and click the right-arrow >> button to move them into the Included users list.



6 To remove users from the Included users list, select them and click the left-arrow << button to move them into the Excluded users list.

**7** On the VPN Authentication tab, do the following:



If this group is used in a VPN Tunnel,

fill in the following information.

User Distinguished Name(DN) includes:

Issuer Distinguished Name(DN) includes:

Authentication method: None

User binding: No Binding

□ Enforce group binding

User Distinguished Name (DN) includes

Type the Distinguished Name (DN) of the user group. This is used for authenticating VPN clients with X.509 client certificates. When this method is used, the security gateway first makes sure that the certificate is valid. It then determines whether the user belongs to the group by checking whether the certificate's subject contains this user DN value.

An example user DN value might be: ou=Sales, o=Symantec, c=US.

Issuer Distinguished Name (DN) includes

Type the Distinguished Name (DN) of the LDAP server. This is used for authenticating VPN clients with X.509 client certificates. When this method is used, the security gateway first makes sure that the certificate is valid. It then determines whether the user belongs to the group by checking whether the certificate's issuer contains this issuer DN value.

An example issuer DN value might be: o=Symantec, c=US.

Authentication method

Select the type of extended authentication you want to apply to the tunnel.

The options are None, entrust, gwpasswd, ldap, ntdomain, securid, and skey. The default is None.

User binding

Select the type of binding, if any, to use.

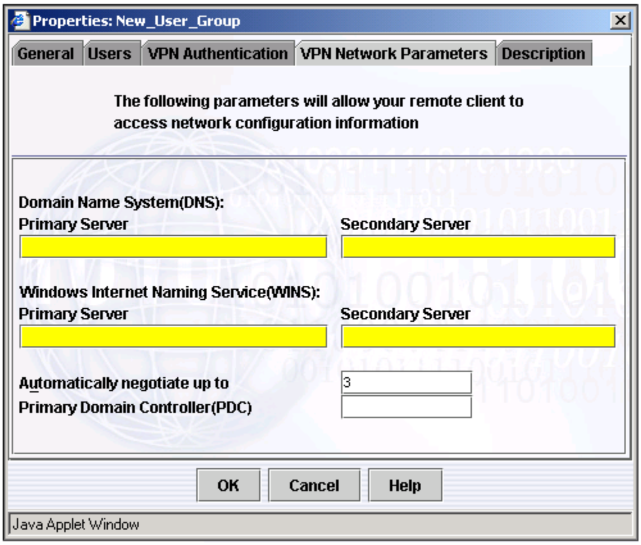
The options are No binding, Same as Phase 1 ID, and Included in Phase 1 ID. The default is No binding.

Enforce group binding

To enforce group binding, click **Enforce group binding**.

This check box is unchecked by default.

8 On the VPN Network Parameters tab, configure the following network parameters. These parameters let tunneled users access the correct DNS/ WINS/PDC for their home network.



Properties: New_User_Group

The following parameters will allow your remote client to access network configuration information

Domain Name System(DNS):
Primary Server
Secondary Server

Windows Internet Naming Service(WINS):
Primary Server
Secondary Server

Automatically negotiate up to: 3
Primary Domain Controller(PDC):

DNS Primary Server

Type the IP address or fully-qualified domain name of the primary Domain Name System server.

DNS Secondary Server

Type the IP address or fully-qualified domain name of the secondary Domain Name System server.

WINS Primary Server

Type the IP address or fully-qualified domain name of the primary Windows Internet Naming Service server.

| | |
|---|---|
| WINS Secondary Server | Type the IP address or fully-qualified domain name of the secondary Windows Internet Naming Service server. |
| Automatically negotiate up to | Type the number of tunnels to automatically open when the client reboots. The default is three. The maximum is 26. |
| Primary Domain Controller (PDC) | Type the IP address or fully-qualified domain name of the Primary Domain Controller. |

9 On the Description tab, you can add a more detailed description than you typed in the on the General tab in the Caption text box.

10 Click **OK**.

11 In the User Groups window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The user group is now configured for use.

# Configuring service groups

When configuring a rule, you must assign a service group. A service group is a protocol or a group of protocols which defines the type of traffic controlled by the rule. You can use a pre-defined service group or you can create your own service group.

Table 5-1 lists the pre-defined service groups.

**Table 5-1** Pre-defined service groups

| Service group | Protocols |
|---|---|
| All | <all> |
| FTP | ftp |
| FTP_and_HTTP | ftp, http |
| IPsec_Pass_Through | ESP, isakmp, udp_encap |
| Mail | smtp |
| News | nntp |
| Telnet | telnet |
| Web | http |

You can configure the following additional service groups:

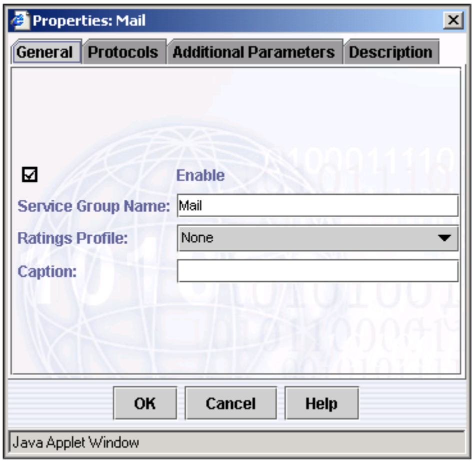
- Configuring CIFS service group parameters
- Configuring FTP service group parameters
- Configuring HTTP service group parameters
- Configuring NNTP service group parameters
- Configuring RealAudio service group parameters
- Configuring SMTP service group parameters

### To configure a service group

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **New Service Group**.

3 In the new table row, right-click and select **Properties**.



Properties: Mail

☑ Enable

Service Group Name: Mail

Ratings Profile: None

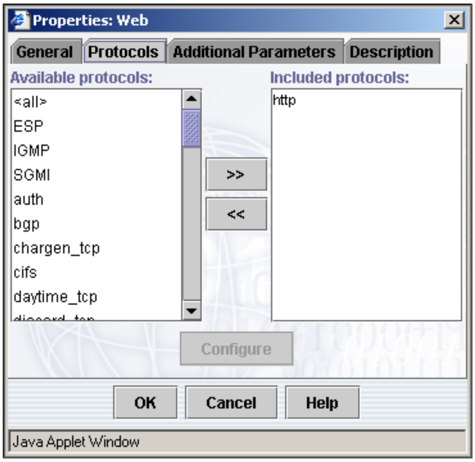
Caption:

4 In the Properties window, on the General tab, do the following:

- To enable the service group, check **Enable**.
  The check box is checked by default.
- In the Service Group Name text box, type a name for the service group.
- In the Ratings Profile drop-down list, select a rating profile to use if you want content filtering applied.
  Ratings profiles apply only to HTTP traffic. You must select the HTTP protocol for the ratings profile to take effect.
- In the Caption text box, type a brief description of the service group.
  You can add a more detailed description on the Description tab.

5 On the Protocols tab, in the Available protocols list, select the protocols you want included in the service group and click the right-arrow >> button to move them to the Included protocols list.

To remove a protocol, highlight it in the Included protocols list and click the left arrow << button.



6 On the Description tab, you can add a more detailed description of the service group than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 On the Service Groups tab, click **Apply**.

9 On the Selection Menu, click **Activate**.

The service group is now configured for use.

# Configuring CIFS service group parameters

You can configure additional Common Internet File System (CIFS) parameters that will be used by rules that use this service group.

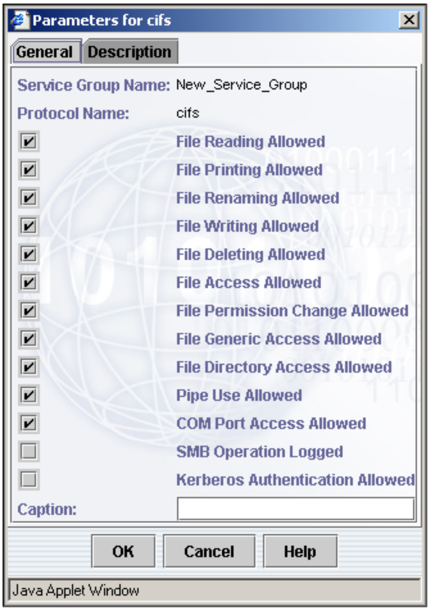
### To configure CIFS service group parameters

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **New Service Group** and then click **Properties**.

3 On the Protocols tab, in the Excluded protocols list, highlight **cifs** and click the right-arrow >> button to move it to the Included protocols list.

4 Click **Configure**.



Service Group Name: New_Service_Group

Protocol Name: cifs

☑ File Reading Allowed

☑ File Printing Allowed

☑ File Renaming Allowed

☑ File Writing Allowed

☑ File Deleting Allowed

☑ File Access Allowed

☑ File Permission Change Allowed

☑ File Generic Access Allowed

☑ File Directory Access Allowed

☑ Pipe Use Allowed

☑ COM Port Access Allowed

☐ SMB Operation Logged

☐ Kerberos Authentication Allowed

Caption:

5 On the General tab, check or uncheck the following check boxes in accordance with the features you want to configure.
All check boxes but the last two are checked by default.

File Reading Allowed
Lets users read files or query attributes of files on a System Message Block (SMB) server. This is useful for setting up public directories for download purposes only.

File Printing Allowed
Lets users perform print operations or connect to print shares on an SMB server.

File Renaming Allowed
Lets users and applications rename or move files on an SMB server.

File Writing Allowed
Lets users write or copy files or create directories on an SMB server. This is useful for setting up public directories for upload purposes only.

File Deleting Allowed
Lets users and applications delete files or directories from SMB servers.

File Access Allowed
Lets users connect to file shares on an SMB server.

File Permission Change Allowed
Lets users and applications change model attributes of any file on an SMB server.

File Generic Access Allowed

Lets users connect to any kind of shared resource not covered by the File Printing Allowed, Pipe Use Allowed, File Access Allowed, and COM Port Access Allowed services.

CIFS clients using generic access to connect to CIFS servers for administrative purposes allow the server to validate that the client machine is in the same domain. To prevent this traffic from going through the security gateway, make sure File Generic Access Allowed is not checked. However, once it is disabled, if the client and server are in different domains, file and print sharing between these machines will not work.

File Directory Access Allowed

Lets users and applications obtain directory listings.

Pipe Use Allowed

Lets applications use named pipes over an SMB connection. Named pipes are used for a variety of applications, including remote management, network printer sharing, and SQL server. If this check box is not checked in your CIFS rule, these applications cannot be passed through the security gateway. If you don’t want your inside systems managed remotely by outside clients, but you have CIFS enabled in a rule that lets outside users connect to inside CIFS servers, make sure this check box is not checked for that rule.

COM Port Access Allowed

Lets users connect to shared communication devices such as serial ports.

SMB Operation Logged

Perform an audit log of all SMB operations. This can cause performance degradation under heavy loads. This is unchecked by default.

Kerberos Authentication Allowed

Lets messages be sent on port 88 for Kerberos authentication. If this is checked, udp-gsp listens on port 88. If it is unchecked (the default), port 88 is blocked.

6 In the Caption text box, type a brief description of the CIFS service group.

7 On the Description tab, you can add a more detailed description of the CIFS service group.

8 Click **OK**.

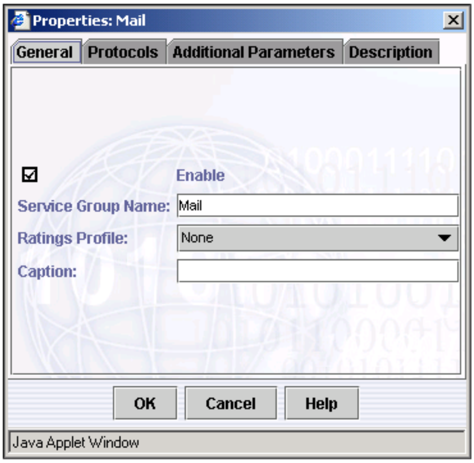
9 In the Service Groups window, click **Apply**.

## Configuring FTP service group parameters

You can configure additional FTP parameters that will be used by rules that use this service group.

### To configure FTP service group parameters

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Service Groups tab, click **New Service Group**.
3. In the new table row, right-click and select **Properties**.



☑ Enable

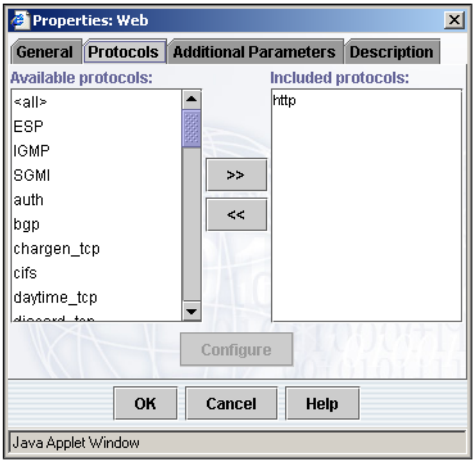
Service Group Name: Mail

Ratings Profile: None

Caption:

4. In the Properties window, on the General tab, do the following:
   - To enable the service group, check **Enable**.
     The check box is checked by default.
   - In the Service Group Name text box, type a name for the service group.
   - In the Ratings Profile drop-down list, select a rating profile to use if you want content filtering applied.
     Ratings profiles apply only to HTTP traffic. You must select the HTTP protocol for the ratings profile to take effect.
   - In the Caption text box, type a brief description of the service group.
     You can add a more detailed description on the Description tab.
5. On the Protocols tab, in the Available protocols list, select the protocols you want included in the service group and click the right-arrow >> button to move them to the Included protocols list.

To remove a protocol, highlight it in the Included protocols list and click the left arrow << button.



6 On the Description tab, you can add a more detailed description of the service group than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 On the Service Groups tab, click **Apply**.

# Configuring HTTP service group parameters

You can configure additional HTTP parameters to be used by rules that use a particular service group.

### To configure HTTP service group parameters

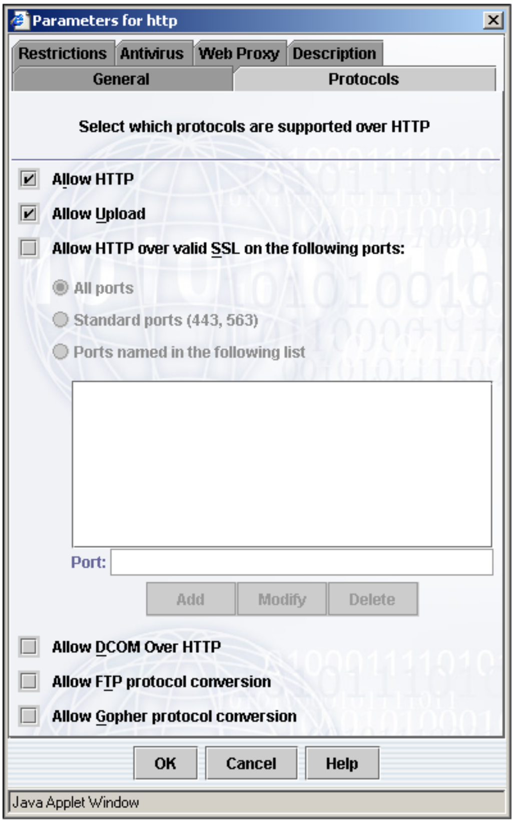
1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **Web**, and then click **Properties**.

3 On the Protocols tab, in the Included protocols list box, highlight **http**, and then click **Configure**.

4 On the Parameters for http Properties window, on the General tab, in the Caption text box, type a brief description of the HTTP service group.

5 On the Protocols tab, do the following:



Select which protocols are supported over HTTP

☑ Allow HTTP

☑ Allow Upload

□ Allow HTTP over valid SSL on the following ports:

● All ports

○ Standard ports (443, 563)

○ Ports named in the following list

Port:

□ Allow DCOM Over HTTP

□ Allow FTP protocol conversion

□ Allow Gopher protocol conversion

Allow HTTP To enable HTTP, check **Allow HTTP**. This check box is checked by default. Uncheck this check box if you want to require the use of SSL.

Allow Upload To enable HTTP post and put requests, check **Allow Upload**. This check box is checked by default.

Allow HTTP over valid SSL on the following ports

To enable HTTPS, check **Allow HTTP over valid SSL on the following ports** and select the ports to use. The choices are:

All ports (the default)

Standard ports (443/563)

Ports named in the following list

The check box is unchecked by default. To use non-standard ports for proxied connections, type the port numbers in the Port text box and click **Add**. To modify or delete a port number, highlight it in the list box and click **Modify** or **Delete**.

While this check box applies to transparent and proxied connections, the port options apply only to proxied connections. They refer to the port specified in the URL that was requested by the user.

Allow DCOM Over HTTP

To enable Distributed Component Object Model (DCOM) over HTTP, check **Allow DCOM Over HTTP**.

DCOM is a binary protocol layered over RPC and designed to enable COM-based components to interoperate across networks. This check box is unchecked by default.

For DCOM to work, the connecting client must be able to reach the server by its actual IP address. Therefore, it is necessary to create client-side transparency using an address transform on the system depending on whether the DCOM connection is incoming or outgoing (server-side transparency is exists by default). Note that DCOM normally uses dynamic port allocation, but because you are sending DCOM over HTTP, it uses the designated HTTP ports.

Allow FTP protocol conversion

To enable FTP protocol conversion, check **Allow FTP protocol conversion**.

This check box is unchecked by default. This option allows the system to handle FTP URLs. The same authentication that can occur in normal HTTP requests can occur here, but file name extensions, Java, and allowed URL filtering will have no effect on these connections.

Allow Gopher protocol conversion

To enable Gopher protocol conversion, check **Allow Gopher protocol conversion**.

This check box is unchecked by default. This option allows the system to handle Gopher URLs. The same authentication that can occur in normal HTTP requests can occur here, but file name extensions, Java, and allowed URL filtering will have no effect on these connections.

6 On the Restrictions tab, to restrict by URLs, check **Restrict by URLs**.
This option allows access only to specified groups of URLs. URL access is restricted on a per-rule basis. This check box is unchecked by default.

7 To restrict by file extensions, check **Restrict by File Extensions**.
This option allows access only to specified file extensions. This check box is unchecked by default.

8 On the Antivirus tab, to enable antivirus scanning, check **Enable Antivirus scanning**.
This check box is unchecked by default.

9 To enable antivirus comforting, check **Enable Antivirus comforting**.
This check box is checked by default. This option is only available if antivirus scanning is enabled.

10 On the Web Proxy tab, to specify an external Web proxy for traffic controlled by rules using this service group, type the IP address in the External Web proxy text box.
You can improve the performance of your internal Web browsers by using an external Web caching proxy. A Web caching proxy maintains a cache of material previously downloaded from external sites. Internal users requesting previously cached materials receive them from the caching proxy.

11 In the External Web proxy port text box, type the port for the connection to the Web proxy.
The default is port 80.

12 On the Description tab, you can add a more detailed description of the service group than you typed on the General tab in the Caption text box.

13 Click **OK**.

14 On the Selection Menu, click **Activate**.

## Configuring NNTP service group parameters

You can configure additional NNTP parameters that will be used by rules that use that service group.

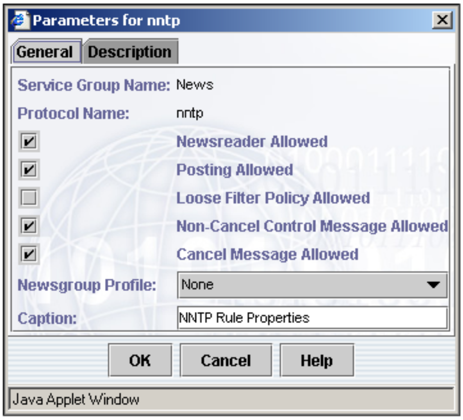
### To configure NNTP service group parameters

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **News**, and then click **Properties**.

3 On the Protocols tab, in the Included protocols list box, highlight **nntp** and click **Configure**.

4 On the Parameters for NNTP Properties window, on the General tab, do the following:



Service Group Name: News

Protocol Name: nntp

☑ Newsreader Allowed

☑ Posting Allowed

☐ Loose Filter Policy Allowed

☑ Non-Cancel Control Message Allowed

☑ Cancel Message Allowed

Newsgroup Profile: None

Caption: NNTP Rule Properties

Newsreader Allowed

To enable the newsreader, check **Newsreader Allowed**.

This check box is checked by default.

Posting Allowed

To enable posting to newsgroups, check **Posting Allowed**.

This check box is checked by default

Loose Filter Policy Allowed

To allow cross-posted messages, check **Loose Filter Policy Allowed**.

A news message is often sent to several groups at once. This is called cross-posting. As a default, any message that has been cross-posted to a group on your denied list will be dropped.

When this option is enabled, any message that is posted to at least one of your allowed newsgroup profiles is allowed through the security gateway. This check box is unchecked by default.

Non-Cancel Control Message Allowed

To allow non-cancel control messages, check **Non-Cancel Control Message Allowed**.

This check box is checked by default.

| | |
|---|---|
| Cancel Message Allowed | To allow cancel messages, check **Cancel Message Allowed**.<br>This check box is checked by default. |
| Newsgroup Profile | In the Newsgroup Profile drop-down list, select a newsgroup profile. |
| Caption | Type a brief description of the NNTP service group. |

5 On the Description tab, you can add a more detailed description than you typed in the on the General tab in the Caption text box.

6 Click **OK**.

7 On the Selection Menu, click **Activate**.

## Configuring RealAudio service group parameters

You can configure additional RealAudio parameters that will be used by rules that use that service group.

### To configure RealAudio service group parameters

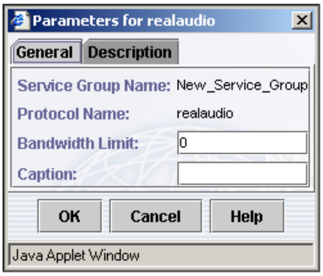
1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **New Service Group** and then click **Properties**.

3 On the Protocols tab, in the Excluded protocols list, highlight **realaudio** and click the right-arrow >> button to move it to the Included protocols list.

4 Highlight realaudio and click **Configure**.

5 On the Parameters for realaudio Properties window, on the General tab, in the Bandwidth Limit text box, type the RealAudio bandwidth limit in Kbps.



Service Group Name: New_Service_Group

Protocol Name: realaudio

Bandwidth Limit: 0

Caption:

If clients on your network are using HTTP as a transport rather than RealAudio, bandwidth limits are not applicable. In this case, to configure RealAudio limits, you must set up MIME type restrictions.

6 In the Caption text box, type a brief description of the service group.

7 On the Description tab, you can add a more detailed description of the service group.

8 Click **OK**.

9 In the Service Groups window, click **Apply**.

10 On the Selection Menu, click **Activate**.

## Configuring SMTP service group parameters

You can configure additional SMTP parameters that will be used by rules that use that service group.

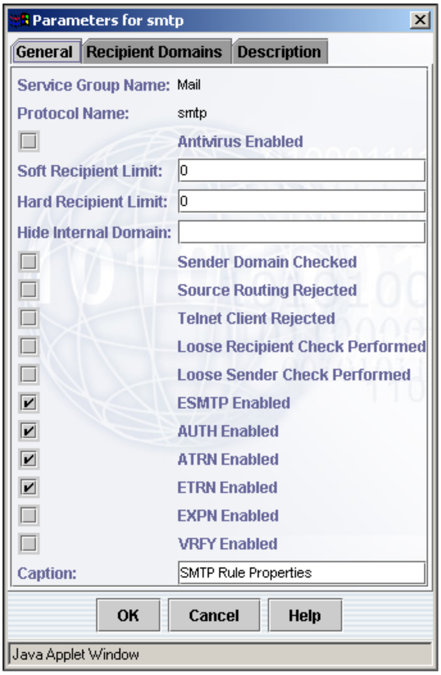
### To configure SMTP service group parameters

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Service Groups tab, click **Mail**, and then click **Properties**.

3 On the Protocols tab, in the Included protocols list box, highlight **smtp** and click **Configure**.

4 On the Parameters for smtp Properties window, on the General tab, do the following:



Service Group Name: Mail

Protocol Name: smtp

☐ Antivirus Enabled

Soft Recipient Limit: 0

Hard Recipient Limit: 0

Hide Internal Domain:

☐ Sender Domain Checked

☐ Source Routing Rejected

☐ Telnet Client Rejected

☐ Loose Recipient Check Performed

☐ Loose Sender Check Performed

☑ ESMTP Enabled

☑ AUTH Enabled

☑ ATRN Enabled

☑ ETRN Enabled

☐ EXPN Enabled

☐ VRFY Enabled

Caption: SMTP Rule Properties

Antivirus Enabled

To enable antivirus scanning of email, check **Antivirus Enabled**.

This check box is unchecked by default.

Soft Recipient Limit

Type the maximum number of recipients who will be handled on a single message.

The remainder are told to retry. This entry is typically set to the total number of users behind the security gateway. This does not impact the SMTP protocol, but it makes it more difficult for someone interested in sending spam. The minimum soft limit defined in the SMTP RFC is 100. Although it is not recommended, you can set a lower value. The default is 0, which means no limit.

Hard Recipient Limit

Type the maximum number of recipients who will be handled on a single message.

If this limit is reached, the whole message is denied. This limit should be set higher than the soft limit and higher than the number of recipients of an average legitimate message. The minimum hard limit defined in the SMTP RFC is 100. Although it is not recommended, you can set a lower value. The default is 0, which means no limit.

Hide Internal Domain

If you want to shield your internal domain name, type the internal domain name.

If you use this entry, the source domain of mail messages is hidden from outside users. Received lines which match the hide domain name are replaced by “private information removed.” Suppression is for a single block of received header lines.

Sender Domain Checked

To force the originator’s address to be validated, check **Sender Domain Checked**.

This forces the sender’s address to be validated by checking the format and ensuring the domain name is fully-qualified. It also checks whether an MX record exists for the domain name in DNS. Email from recipients who fail the DNS-registration test is rejected. This check box is unchecked by default.

Source Routing Rejected

To reject email using source-routing syntax, check **Source Routing Rejected**.

This causes the SMTP proxy to refuse all email to addresses specified using source-routing syntax. If you do not specify recipient domains and you do not check this check box, you are allowing all mail through with no conditions and opening yourself up to being used as a SPAM relay site. If you have specified recipient domains, enabling this feature is not necessary in most cases. This check box is unchecked by default.

Telnet Client Rejected

To reject Telnet connections, check **Telnet Client Rejected**.

This automatically disconnects all connections which appear to be regular users using a Telnet client. Using this feature is discouraged unless absolutely necessary. This check box is unchecked by default.

Loose Recipient Check Performed

To loosen the character-set validation for SMTP recipients, check **Loose Recipient Check Performed**.

This enables the use of the % character in the mail recipient syntax as well as the use of the ! character. If this feature is not enabled, email to recipient addresses with those characters is rejected. This check box is unchecked by default.

Loose Sender Check Performed

To loosen the character-set validation for SMTP senders, check **Loose Sender Check Performed**.

This enables the use of the % character in the mail sender syntax as well as the use of the ! character. If this feature is not enabled, email sent from addresses with those characters is rejected. This check box is unchecked by default.

ESMTP Enabled

To provide access to the Extended Simple Mail Transfer Protocol (ESMTP), check **ESMTP Enabled**.

ESMTP is enabled by default and is defined in RFC 2821.

AUTH Enabled

To allow users to authenticate with the server, check **AUTH Enabled**.

This allows clients to send user name and password to authenticate with the server. This check box is checked by default.

ATRN Enabled

To enable authenticated turn, check **ATRN Enabled**.

Authenticated turn allows an on-demand mail relay from the server to the client by turning the existing connection around. This check box is checked by default.

ETRN Enabled

To enable extended turn, check **ETRN Enabled**.

Extended turn allows clients to access mail. In this case, the server is requested to initiate a separate connection to the client as a mail relay from the server to the client. This check box is checked by default.

EXPN Enabled

To enable expansion, check **EXPN Enabled**.

This allows for the expansion of mailing lists. This check box is unchecked by default.

| | |
|---|---|
| VRFY Enabled | To enable verify, check **VRFY Enabled**.<br>This allows the verification of mail addresses. This check box is unchecked by default. |
| Caption | In the Caption text box, type a brief description of the SMTP service group. |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

7 Click **Apply**.

8 On the Selection Menu, click **Activate**.

Chapter 6

# Configuring DNS

This chapter includes the following topics:

## DNS records

If you are using the security gateway as your DNS server, you must set the DNS Search Order on your host to pass DNS requests back to itself using the loopback address (127.0.0.1). All internal hosts should direct DNS requests to the inside interface of the system.

The installation procedure alters the DNS search order of your host machine. The install sets the loopback address (127.0.0.1) as the first address for DNS requests. This means that DNS requests return to the host for the DNS proxy to process.

This section describes the procedure to set up the name service for the host system using the Domain Name Service (DNS) proxy.

When one system wants to contact another system on a network, the DNS facilitates that contact by looking up the destination IP address based on the computer name (name resolution). It can also look up the computer name based on the IP address (address resolution).

The DNS proxy provides name resolution for computers both inside and outside your network without compromising the privacy of your inside systems. You should have a thorough understanding of DNS before attempting to configure it.

# DNS proxy

The security gateway includes a DNS proxy called DNSd. Properly configured, DNSd allows the security gateway to act as a name server. The default configuration of the security gateway is a basic DNS implementation. It is possible to configure Dual-level DNS on the security gateway. Dual-Level DNS is DNSd working in conjunction with an inside name server for inside name requests.

After installing the security gateway and rebooting the security gateway, the DNS settings of the machine will show that 127.0.0.1 (localhost) has been listed as the primary name server. At a minimum, 127.0.0.1 should remain at the top of the list. It is recommended that if you are using DNSd on the security gateway, remove the other entries from the TCP/IP settings, and only have 127.0.0.1 listed. This provides an additional check to tell you that DNSd is still working properly.

DNSd allows for both public and private zone files to be maintained by the security gateway. Refer to the Reference Guide for further information.

The DNS proxy must be enabled in the DNS Proxy Properties window, which controls the server applications. The DNS proxy is enabled by default, but if you need to re-enable it after turning it off, locate the DNS Proxy on the Location Settings Advanced tab under Proxies, right click and select Properties. Check the **Enable** check box in the General tab and proceed.

**Note:** Symantec does not support third party DNS servers on the system. If you use a third party product, you must contact its manufacturer for support.

After checking that the DNS proxy is enabled, you can use the DNS Record Properties window to do the following:

- Provide the hosts filename to address mapping statements or copy an existing hosts file to the system.

- Provide the hosts.pub file name to address mapping statements or copy an existing hosts.pub file to the system.
- Enter private interfaces.
- Optionally, enter forwarders.
- Optionally, define public domains and networks.
- Optionally, define private domains and networks.
- Verify connectivity using the ping protocol (from a Command window).

This section uses the xyz.com network as a typical example of how DNS works by:

- Setting up default routes
- Configuring TCP/IP
- Setting up static routes

These three steps are not part of setting up the DNS proxy itself. Unless they are done correctly, however, your network will have problems performing name resolution.

Some sites will need DNS advanced features, including zone transfers, MX records, and subdomains.

You should understand basic DNS functionality before attempting to configure the DNS proxy. There are a number of books on DNS, for example:

- *DNS and Bind*, Third Edition, Albitz, Paul, and Liu, Cricket, O'Reilly & Associates, Inc., 1998, ISBN 1-56592-512-2.
- *Internetworking with TCP/IP*, Douglas R. Comer and David L. Stevens, Prentice Hall, Inc.

The example network has a firewall with a Web server and a protected news server on a service network. The main networks are the private protected machines. The firewall (called demo) does all the name resolution for this site.

### To configure a DNS record

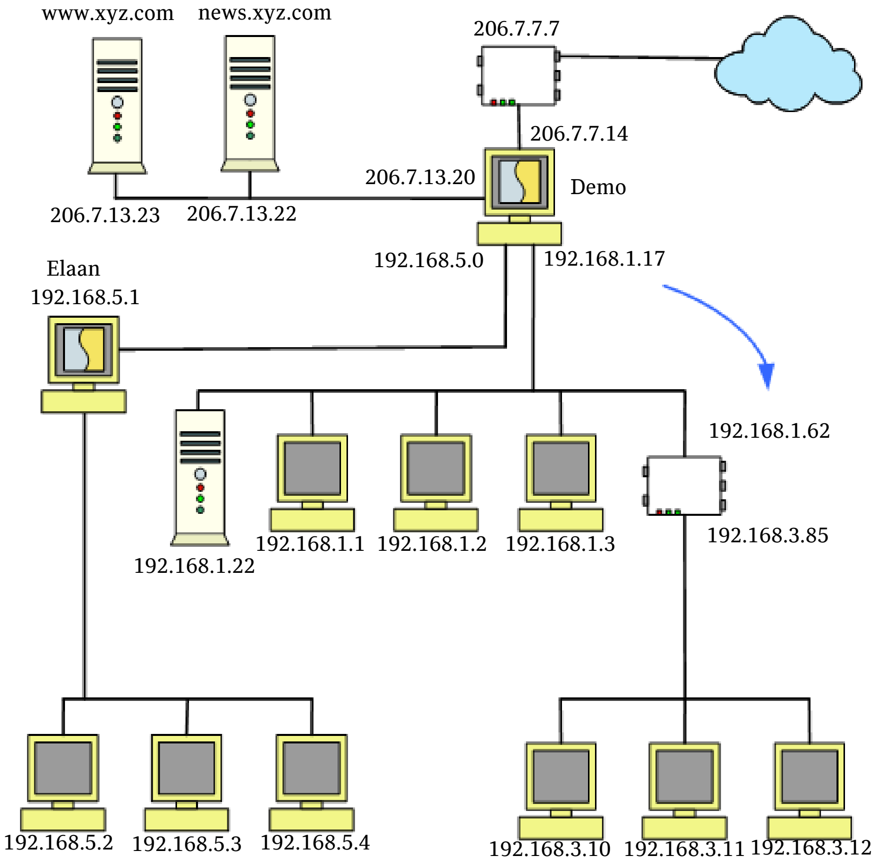
1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the DNS tab, in the Table menu, click **New DNS Record** and select the type of DNS record you want to create.
3. Click **Properties**.
   The information you need to supply in the Properties window depends on the type of DNS record you created.

# DNS authority

The security gateway's DNS can support more than one private or public domain. The DNS proxy is only authoritative for those domains and networks defined through the DNS Record Properties window. In the case of public domains, the term authoritative means that the outside address of the system is registered as an authoritative DNS server for your domain.

You can make the DNS proxy authoritative for both public and private requests as illustrated within the xyz.com domain in the example network. The domain "xyz.com" is specified in both hosts and hosts.pub as authoritative. The DNS proxy deals with requests within xyz.com without forwarding them.

**Figure 6-1** Example network



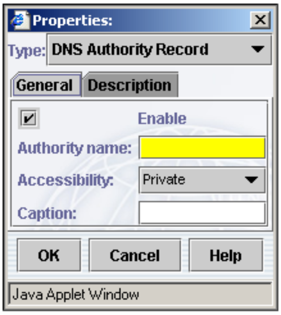
**To configure DNS authority**

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS Record > DNS Authority Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the type of DNS record you selected is displayed.



Properties:

Type: DNS Authority Record

☑ Enable

Authority name:

Accessibility: Private

Caption:

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Authority name text box, type a name for the DNS record.

7 In the Accessibility drop-down list, select **Private** or **Public**.
If you want the security gateway's outside interface defined as the authoritative DNS server for your domain, select Public. If you want the DNS proxy to be authoritative for private requests within the domain, select Private. Private is the default.

8 In the Caption text box, type a brief description of the DNS record.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the DNS Records window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The DNS authority record is now configured for use.

# DNS forwarders

Generally, it is unnecessary to create forwarders on the security gateway.

A forwarder is a DNS server, other than DNSd, used to provide the protected network with the names and addresses of servers and hosts.

If you do not provide the addresses of any forwarders, the DNS proxy performs its own name resolution and host lookups, querying a root name server for the appropriate authoritative name server. Leaving forwarders blank is the recommended approach, unless there is something blocking DNS access to the root name servers or other Internet name servers.

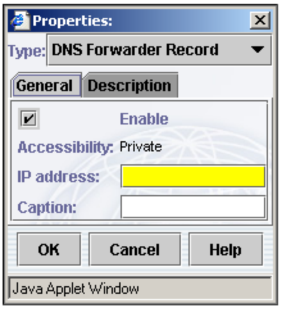
### To configure a DNS forwarder

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS Record > DNS Forwarder Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the type of DNS record you selected is displayed.



Properties:

Type: DNS Forwarder Record

☑ Enable

Accessibility: Private

IP address:

Caption:

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Accessibility text box, the Private status is displayed.

7 In the IP address text box, type the IP address or fully-qualified domain name of the forwarder.

8 In the Caption text box, type a brief description of the DNS record.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the DNS Records window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The DNS forwarder record is now configured for use.

# DNS hosts

Depending on the size and complexity of your internal networks, you may need to set up subdomains within your primary domain. In the example network, the main domain is xyz.com. Within this domain, you could set up a subdomain called MFG.xyz.com. In this case, you could designate host wkst22 as the name server for the MFG.xyz.com domain using the following procedure.

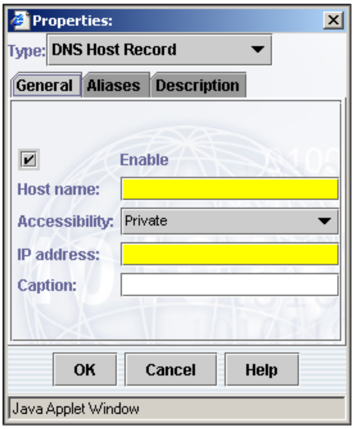
### To configure a DNS host

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS record > DNS Host Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the type of DNS record you selected is displayed.


Properties:
Type: DNS Host Record
☑ Enable
Host name:
Accessibility: Private
IP address:
Caption:

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Host name text box, type a fully-qualified domain name for the DNS record.

7 In the Accessibility drop-down list, select **Public** or **Private**.
Private is the default.

8 In the IP address text box, type the IP address of the host.

9 In the Caption text box, type a brief description of the DNS record.

10 On the Aliases tab, you can add DNS aliases by typing them in the Alias text box and clicking **Add**.

11 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

12 Click **OK**.

13 In the DNS Records window, click **Apply**.

14 On the Selection Menu, click **Activate**.
The DNS host record is now configured for use.

# DNS mail servers

The public mail server is used to point external mail systems to the appropriate address for your domain mail server, usually the outside address of the security gateway.

You can also set up your DNS server to specify an outside host to hold your mail temporarily. This assures that mail destined for your internal systems will get delivered, even if your internal mail server is down for a short period of time.

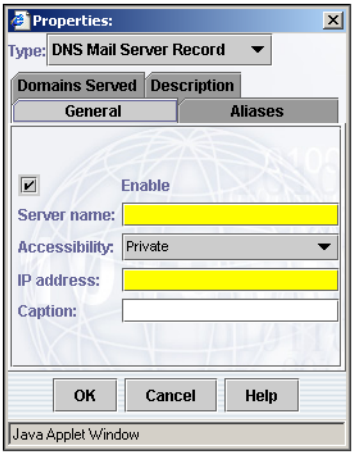
### To configure a DNS mail server

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS Record > DNS Mail Server Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the type of DNS record you selected is displayed.



Properties:

Type: DNS Mail Server Record

☑ Enable

Server name:

Accessibility: Private

IP address:

Caption:

Java Applet Window

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Server name text box, type a fully-qualified domain name for the mail server.

7 In the Accessibility drop-down list, select one of the following:

- To control the routing of internal mail to internal mail servers, select **Private**.
- To point external mail systems to the appropriate address for your mail server, usually the outside address of the security gateway, select **Public**.

Private is the default.

8 In the IP address text box, type the IP address of the mail server.

9 In the Caption text box, type a brief description of the DNS record.

10 On the Aliases tab, you can configure aliases by typing them into the Alias text box and clicking **Add**.

11 On the Domains Served tab, you can configure the domains for which the mail server will provide service by typing the domain name in the Domain text box and clicking **Add**.

12 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

13 Click **OK**.

14 In the DNS Records window, click **Apply**.

15 On the Selection Menu, click **Activate**.
The DNS mail server record is now configured for use.

# DNS name servers

Depending on the size and complexity of your internal networks, you may need to set up subdomains within your primary domain. In the example network, the main domain is xyz.com. Within this domain, you could set up a subdomain called MFG.xyz.com. In this case, you could designate host wkst22 as the name server for the MFG.xyz.com domain using the following procedure.

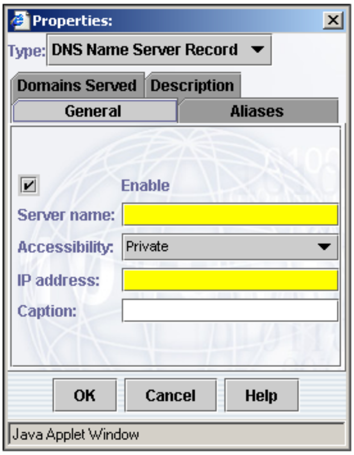
### To configure a DNS name server

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS record > DNS Name Server Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the DNS record type that you selected is displayed.



Type: DNS Name Server Record

☑ Enable

Server name:

Accessibility: Private

IP address:

Caption:

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Server name text box, type a fully-qualified domain name for the DNS name server.

7 In the Accessibility drop-down list, select **Private** or **Public**.
Private is the default.

8 In the IP address text box, type the IP address of the name server.

9 In the Caption text box, type a brief description of the DNS record.

10 On the Aliases tab, you can configure aliases by typing them into the Alias text box and clicking **Add**.

11 On the Domains Served tab, you can configure the domains for which the mail server will provide service by typing the domain name in the Domain text box and clicking **Add**.

12 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

13 Click **OK**.

14 In the DNS Records window, click **Apply**.

15 On the Selection Menu, click **Activate**.
The DNS name server record is now configured for use.

# DNS recursion

In many sites, systems exist between the security gateway and the Internet or off an extra network interface in a zone often referred to as the DMZ or Service Net. Examples of these systems might include Web servers or FTP sites to which you want to allow access from hosts on the Internet. If your network has a DNS server outside the security gateway, and not on a private interface, the DNS proxy will not normally recurse DNS requests by default. In the example network, if www sent a name request, Demo would respond with a locally defined address from the hosts.pub file or a message that the requested name is not in Demo’s authority.

You can configure the security gateway DNS server to resolve host name requests for an outside system. The security gateway will search recursively for a name request from this system. Otherwise, www would have to rely on another name server (such as that supported by an ISP) to resolve name requests.

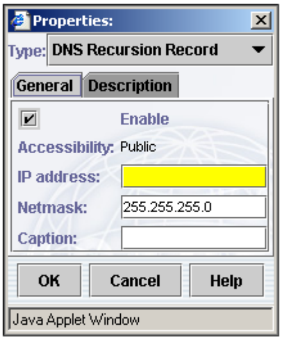
### To configure DNS recursion

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS record > DNS Recursion Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the DNS record type that you selected is displayed.



Type: DNS Recursion Record

☑ Enable

Accessibility: Public

IP address:

Netmask: 255.255.255.0

Caption:

5 On the General tab, to enable the DNS recursion, check **Enable**.

6 In the Accessibility text box, the Public status is displayed.

7 In the IP address text box, type the IP address of the external network.

8 In the Netmask text box, type the subnet mask.
The default is 255.255.255.0. For a single computer, use 255.255.255.255.

9 In the Caption text box, type a brief description of the DNS record.

10 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

11 Click **OK**.

12 In the DNS Records window, click **Apply**.

13 On the Selection Menu, click **Activate**.
The DNS recursion is now configured for use.

# DNS root servers

Use this feature if you installed a security gateway within another security gateway's network. In this case, the internal security gateway needs to access root name servers but it cannot directly access the real Internet root servers because of the first security gateway. Therefore, you must configure the internal security gateway to use the first security gateway as a root server. You would also do this if you have no access to the Internet (if you have your own internal root servers). In the example network, the internal security gateway is named Elaan and the security gateway being defined as a root server is Demo.

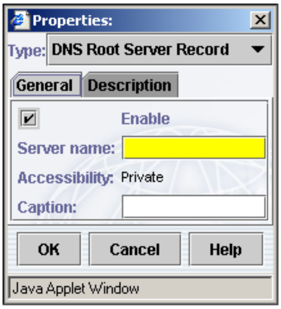
### To configure a DNS root server

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS record > DNS Root Server Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the DNS record type that you selected is displayed.



Type: DNS Root Server Record

☑ Enable

Accessibility: Private

5 On the General tab, to enable the DNS record, check **Enable**.

6 In the Server name text box, type the fully-qualified domain name for the DNS root server.

7 In the Accessibility text box, the Private status is displayed.

8 In the Caption text box, type a brief description of the DNS record.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the DNS Records window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The DNS root server record is now configured for use.

# DNS subnets

You can use DNS subnets to delegate naming authority for a small range of addresses. For example, an ISP that owns the 204.1.242.0 network might want to delegate the reverse naming authority to define bindings for addresses in the range of 204.1.242.128 to 204.1.242.192. The ISP then delegates that range to the administrator of the security gateway, who can then configure DNS to be authoritative over that range.

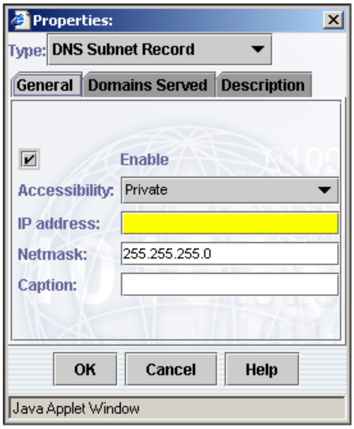
### To configure a DNS subnet

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the DNS tab, click **New DNS record > DNS Subnet Record**.

3 Click **Properties**.

4 In the Properties window, in the Type drop-down list, the DNS record type that you selected is displayed.



Properties:

Type: DNS Subnet Record

☑ Enable

Accessibility: Private

IP address:

Netmask: 255.255.255.0

Caption:

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the DNS record, check **Enable**. |
| Accessibility | In this drop-down list, select **Private** or **Public**. Private is the default. |
| IP address | Type the IP address of the DNS record. |
| Netmask | Type the subnet mask. |
| Caption | Type a brief description of the DNS record. |

6 On the Domains Served tab, you can configure domains by typing the domain name in the Domain text box and clicking **Add**.

7 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

8 Click **OK**.

9 In the DNS Records window, click **Apply**.

10 On the Selection Menu, click **Activate**.
The DNS subnet record is now configured for use.

# Dual-level DNS configuration

In a dual-level configuration, the DNS proxy provides name and address resolution for inside machines looking outside the network. An independent inside DNS server resolves internal names.

This configuration may be appropriate if you have heavy internal traffic. This way, the Symantec security gateway is not constantly accessed to perform internal look-ups.

**Note:** Symantec does not support third party DNS servers on the system. If you use a third party product, you must contact its manufacturer for support.

Consult the following table to decide whether a dual-level DNS is appropriate for your site.

**Table 6-1** Dual-level DNS considerations

| Situation | Solution | Comments |
|---|---|---|
| DNS server on the security gateway host acting as a secondary | Use dual-level DNS. | The DNS proxy cannot act as a secondary DNS server. |
| You have an existing inside DNS server | Use either. | It’s probably easier to use a dual-level DNS and not duplicate effort. |
| Otherwise | Use the DNS proxy. | The DNS proxy is easier to configure. |

Chapter 7

# Enabling firewall access

This chapter includes the following topics:

## Configuring rules

Symantec security gateways control access to and from your private networks by a set of rules created by the administrator. Basic rules include source and destination entities and what interface or secure tunnel in and out of the designated security gateway.

More complex rules can further define access by using time restraints and by designating access to specific users or groups. You can use rules to control how protocols control access to your system, as well as requirements for user authentication.

You can control suspicious activity monitoring through the Rule Properties window. Using designated alert thresholds, you can configure the system to monitor suspicious connection attempts and to send alerts at various intervals.

The authorization rules you create form the framework of your security policy. You can write general rules to cover a wide range of common connection cases and then further refine those rules to make them more specific according to your security needs.

For similarly-configured rules, the following rules of precedence apply:

- Rules that define a Time Period take precedence over those with no Time Period.

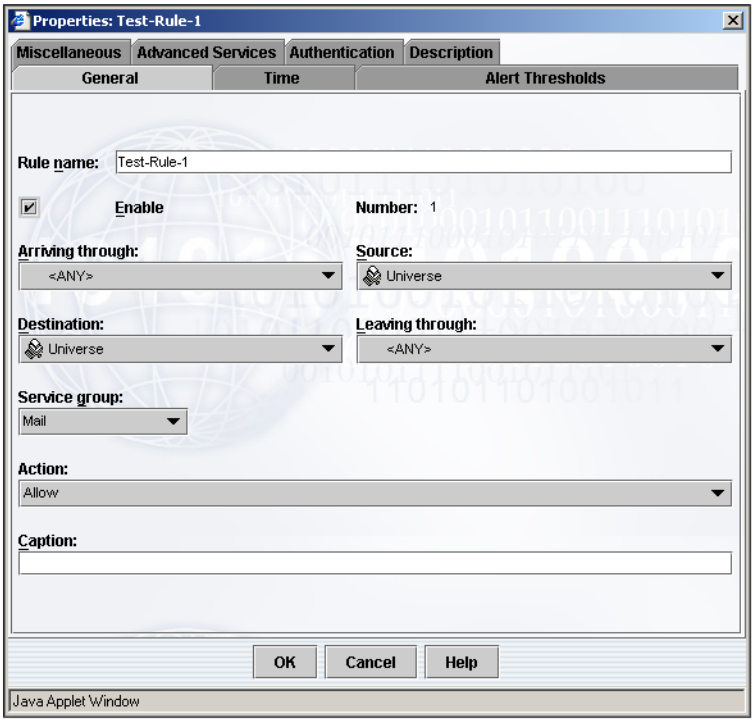
- Rules with more explicit source addresses take precedence. For example, a rule with a host defined as the source takes precedence over a rule with a subnet defined as the source.
- Rules with source interface restrictions take precedence over rules without source interface restrictions.
- Rules with more explicit destination addresses take precedence. For example, a rule with a host defined as the destination takes precedence over a rule with a subnet defined as the destination.
- Rules with destination interface restrictions take precedence over rules without destination interface restrictions.
- Rules that explicitly deny traffic supersede matching rules.
- Rules with user restrictions override those without user restrictions.
- Rules with authentication override those without authentication.

Before writing your rules, you should have configured the network entities that you select for your rule.

### To configure a rule

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Rules tab, click **New Rule**.

3 Click **Properties**.



Properties: Test-Rule-1

Rule name: Test-Rule-1

☑ Enable

Number: 1

Arriving through: <ANY>

Source: Universe

Destination: Universe

Leaving through: <ANY>

Service group: Mail

Action: Allow

Caption:

4 In the Rule Properties window, on the General tab, do the following:

Rule name
Type a name for the rule. The name cannot contain spaces.

Enable
To enable the new rule, check **Enable**. This check box is checked by default.

Arriving through
In this drop-down list, select the security gateway interface or VPN tunnel which serves as the entry point for the traffic defined by this rule. To configure a network interface, run the System Setup Wizard or use the Logical Network Interface window.

Source
In this drop-down list, select the network entity that is the source for the traffic defined by this rule.

Destination
In this drop-down list, select the network entity that is the destination for the traffic defined by this rule.

Leaving through

In this drop-down list, select the security gateway interface or VPN tunnel through which the rule's traffic will travel on the outbound path.

Service group

In this drop-down list, select the service group which defines the protocols that make up the traffic defined for this rule.

Action

In this drop-down list, do one of the following:

- To select an allow rule, select **Allow**.
- To select a deny rule, select **Deny**.

If you create a Deny rule that conflicts with established connections, those connections are unaffected. You must use the Kill Connection button on the Active Connections tab in the Monitoring window to stop existing connections in violation of the new rule.

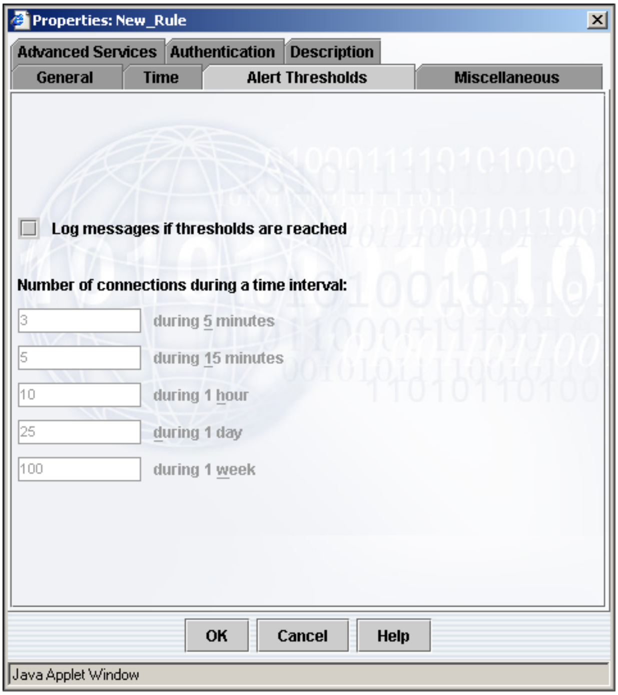
Caption

Type a brief description of the rule to make identification in the future easier.

5 On the Time tab, in the Time range drop-down list, you can select a time range during which the rule is valid.
The default is <ANYTIME>.

6 On the Alert Thresholds tab, to activate alert thresholds, check **Log messages if thresholds are reached.**

This check box is unchecked by default.



□ Log messages if thresholds are reached

Number of connections during a time interval:

3 during 5 minutes
5 during 15 minutes
10 during 1 hour
25 during 1 day
100 during 1 week

7 Under Number of connections during a time interval, in each of the time period text boxes, type the number of connections necessary to trip an alert. The defaults are as follows:

- 3 connections during 5 minutes
- 5 connections during 15 minutes
- 10 connections during 1 hour
- 25 connections during 1 day
- 100 connections during 1 week
  Alert thresholds work according to the number of connections or connection attempts made over a given period of time. Use the default thresholds or enter your own intervals into each text box. If you expect a rule to experience a high level of activity, for example rules using HTTP or SMTP, you may not want to enable alert thresholds.

8 On the Miscellaneous tab, you can check or uncheck check boxes to:

- Log normal activity enables statistical log messages.

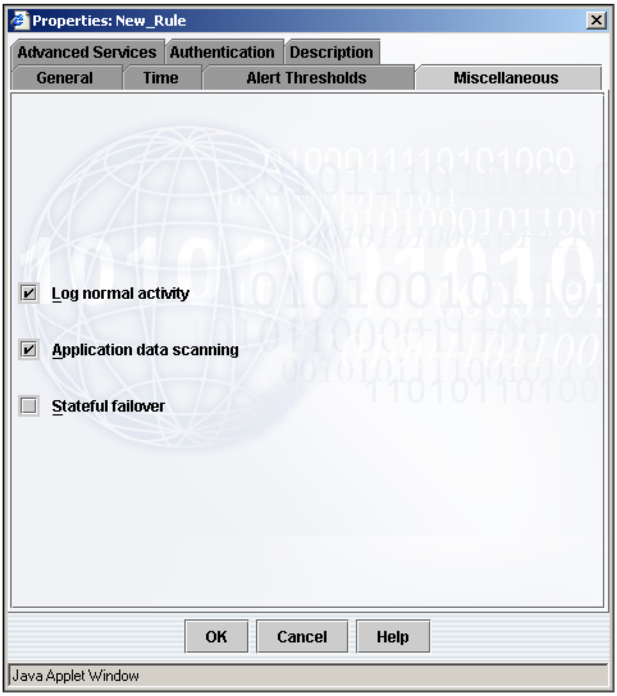
- Application data scanning lets the driver forward protocol packets up to the proxies first to do protocol checking.

  The proxy may or may not forward the packets on to the requested destination. If Application data scanning is disabled, the driver bypasses the proxies (after the initial connection has been made) and forwards the packets on to the requested destination. In this way, the system acts more like a packet filtering product resulting in faster performance but lower levels of security. Selecting certain protocol options, such as MIME filtering, override the disable application data scanning option if it is selected. This option has no effect on traffic other than HTTP/HTTPS, Telnet, FTP, TCP-GSP, and TCPAP-GSP.
- Stateful failover lets you maintain connections even after a security gateway failure in a cluster environment.

  The High Availability/Load Balancing feature maintains connections without reconnecting or re authenticating as long as the connection was active for sixty seconds prior to the failure. This option has no effect on traffic other than HTTP/HTTPS, Telnet, FTP, TCP-GSP, and TCPAP-GSP.

  The Log normal activity and Application data scanning check boxes are checked by default.

If you disable application data scanning, you cannot enable antivirus scanning for the FTP or HTTP proxies.



☑ Log normal activity

☑ Application data scanning

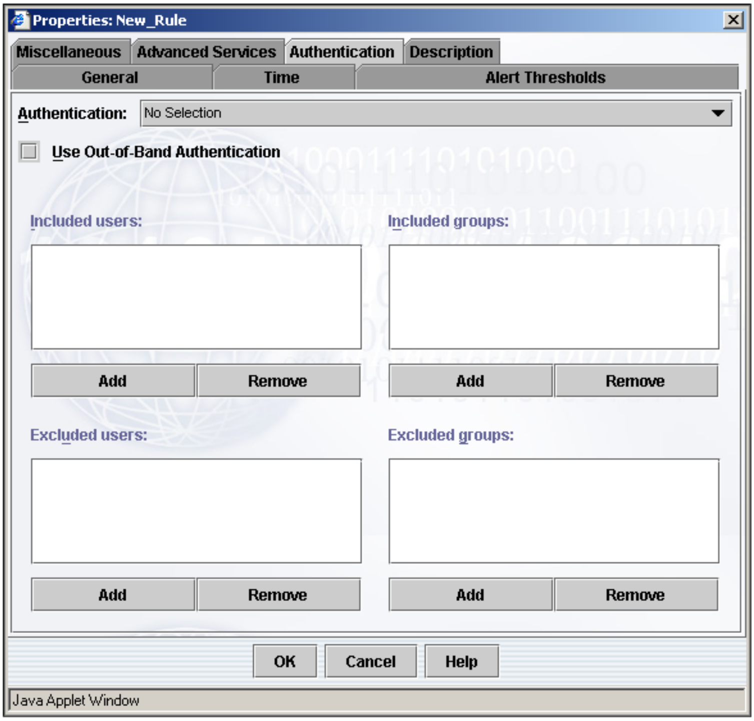
☐ Stateful failover

9 On the Advanced Services tab, to enter special rule services that are not included as part of the standard services, click **Add**.

The syntax must be correct and you will want to consult technical support for the exact syntax required for the special rule service you are creating.

An example of this service would be where SMTP offers several antispam options, it does not offer less common functions as limiting the length of lines in the body of an SMTP message. To do this, type smtp.max_body_line_length in the Parameter text box and click **Add**.

10 On the Authentication tab, do the following.



Authentication: No Selection

☐ Use Out-of-Band Authentication

Authentication — Select the type of authentication, if any, you want associated with the rule. The default is No Selection.

Use Out-of-Band Authentication — To use Out of Band Authentication, check **Out-of-Band Authentication**.

Included users/ Included groups — In the Included users and groups list boxes, to display a list of users or groups that can be added to the Included list, click **Add**. To remove a user or group, highlight the entry and click **Remove**.

Excluded users/ Excluded groups — In the Excluded users and groups list boxes, to display a list of users or groups that can be added to the Excluded list, click **Add**. To remove a user or group, highlight the entry and click **Remove**.

11 On the Description tab, you can add a more detailed description of the rule than you typed on the General tab in the Caption text box.

You can also use it to keep a log of changes made to the rule.

12 When the Properties window is complete, click **OK**.

13 In the Rules window, click **Apply**.

14 On the Selection Menu, click **Activate**.
The rule is now configured for use.

## Preventing attacks using HTTP URL patterns

Unauthorized access to Web servers may sometimes be achieved by the use of special characters in the incoming URL string. To prevent this from happening, you can use the Advanced Services tab to type the string http.urlpattern. This turns on the pattern matching service, which uses the httpurlpattern file.

This file contains a list of regular expressions matching potentially harmful strings that can be used to hack into your server.

Requests for URLs are checked against the patterns listed in the file, with those matching being denied.

### To filter URLs using patterns

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Rules tab, select the rule to which you want to add the filter and click **Properties**.

3 On the Advanced Services tab, in the Parameter text box, type

```
http.urlpattern.
```

4 Click **Add**.

## Passing traceroute

To pass traceroute through the security gateway, create a rule and select a service group containing the ping service. In the Properties window for that rule, on the Advanced Services tab, type ping.preserve.ttl.

### To pass traceroute

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

3 On the General tab, in the Service group drop-down list, select a service group containing ping.

4 On the Advanced Services tab, in the Parameter text box, type

```
ping.preserve.ttl.
```

5 Click **Add**.

## Removing HTTP packet headers

If you do not want to reveal information about your Web server behind your security gateway, you can create an HTTP rule and enter http.remove-header.server on the Advanced Services tab to remove the server information from HTTP response packets sent back through the system.

### To remove HTTP packet headers

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

3 On the General tab, in the Service group drop-down list, select Web.

4 On the Advanced Services tab, in the Parameter text box, type:

```
http.remove-header.server
```

5 Click **Add**.

## Preventing the security gateway from being used as a proxy

If you are using service redirection on the security gateway (for example, HTTP connecting to your Web server) and you do not want to allow users connecting through the security gateway to use it as a proxy, create a rule and type http.noproxy on the Advanced Services tab. This will deny all HTTP proxied connections.

### To prevent the security gateway from being used as a proxy

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

3 On the General tab, in the Service group drop-down list, select Web.

4 On the Advanced Services tab, in the Parameter text box, type:

```
http.noproxy
```

5 Click **Add**.

## Using the Universe network entity

The security gateway contains a network entity called Universe that is created by default. The Universe entity is used like a wildcard and specifies the set of all machines both inside and outside the security gateway. Its associated IP address is 0.0.0.0.

You can use the Universe entity to write a rule that applies to anything. An example of this is a rule that carries out the task defined in the following statement:

“Allow the Development Host to Telnet or FTP to any system, anywhere.”

To make writing this rule easy, the Universe entity is automatically transparent for each of the interfaces flagged as internal during the system setup. All transparent entities can be accessed directly by systems connecting to that interface.

The Universe entity is a permanent part of the security gateway configuration. You cannot delete, change, or rename it.

**Note:** Generally, you should not establish Universe-to-Universe rules because they impose no restrictions on traffic through the security gateway.

### To write the above Universe rule

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.
3. On the General tab, in the Service group drop-down list, select a service group containing Telnet and FTP.
4. In the Source drop-down list, select the network entity corresponding to the Development Host.
5. In the Destination drop-down list, select Universe.
6. Click **OK**.

## Defining antispam rules

You can configure SPAM control features to check specified domains for known spammers on a per-rule basis. You can also set additional SPAM limiting parameters and relay prevention measures on a per-rule basis. By doing this on a per-rule basis for SMTP, you can set more stringent spamming parameters for certain connections and not have them apply to your entire network.

### To set antispam control features

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Rules tab, click **New Rule** or select an existing rule to add antispamming parameters to it.
3. Click **Properties**.
4. On the Advanced Services tab, in the Parameter text box, type one of the SPAM prevention settings described below.
   Type the string exactly as shown to cause the effect described for your rule.

smtp.rbl.<domain>

For example, enter: smtp.rbl.blackholes.mail-abuse.org

SMTP supports multiple per-rule Realtime Blackhole List (RBL) domains, allowing a user to query several lists before deciding whether to accept the connection. Up to ten domains per rule are supported.

If one or more RBL domains are present, and the IP address of the client returns a match in any of the specified query domains, the connection is rejected. A deny message is returned to the client and is controlled by the smtpd.rbl_message.<domain> advanced option, where <domain> is the domain in which the query found a match.

Note: If the smtpd.rbl_message.<domain> advanced option is set to On and the smtpd.rbl_domain option is also set, that domain is checked first, but only if the connection originates from an external interface. If the connection originates from an internal interface, only the per-rule domains are queried.

smtp.strip_received

This is a more drastic solution to the problem above. The presence of this entry in a rule causes all received lines to be suppressed. This is somewhat dangerous because it masks the true source of a message. If someone is using your site as a spam relay, then you lose all trace information. For this reason, this entry is discouraged unless absolutely necessary.

smtp.cscan.<profile>

The presence of this entry in a rule causes all received lines to be suppressed. This is somewhat dangerous because it masks the true source of a message. If someone is using your site as a spam relay, then you lose all trace information. For this reason, this entry is discouraged unless absolutely necessary.

# Configuring proxies

An application proxy, also known as a proxy daemon, is an application that runs on the security gateway and acts as both a server and a client, accepting connections from a client and making requests on behalf of the client to the destination server. The security gateway application proxies provide full application inspection, performing protocol-specific security checks that are not normally implemented in the client and server software for that protocol.

The security gateway provides application proxies for most of the popular application protocols.

The protocols listed when you click Proxies on the Advanced tab in the Location Settings window give you access to proxies Property windows. These property windows let you configure variables for the security gateway's many proxies on a global level.

Services that have configurable proxies included with the security gateway are:

- Common Internet File System (CIFS)
- Domain Name Service (DNS)
- File Transfer Protocol (FTP)
- Generic Service Proxy (GSP)
- H.323
- Hypertext Transfer Protocol (HTTP)
- NetBIOS Datagram (NBDGRAM)
- Network News Transfer Protocol (NNTP)
- Network Time Protocol (NTP)
- Ping
- Remote Command (RCMD)
- Real-Time Streaming Protocol (RTSP)
- Simple Mail Transfer Protocol (SMTP)
- Telnet

New proxies are added with each new security gateway release or as patches between major releases. For services that do not currently have a predefined proxy, you can proxy connections by using the Generic Service Proxy (GSP).

The use of many of these proxies in service groups is described in configurations throughout this guide. For proxies that are not described elsewhere, this section also includes some examples of proxy configuration for rules.

Additional information on proxies is provided in the Reference Guide.

### To configure a proxy

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Advanced tab, click Proxies.
3. In the Proxies table, select a system proxy and click **Properties**.
   The information you need to supply depends on the proxy selected, as described in the sections on individual proxies.

## CIFS proxy

The Common Internet File System (CIFS) is a standard protocol that lets programs make requests for files and services on remote computers on the Internet. A client program makes a request of a server program (usually in another computer) for access to a file or to pass a message to a program that runs in the server. The server takes the requested action and returns a response. CIFS is actually an open variation of the System Message Block (SMB) protocol. The SMB protocol is widely used in local area networks for server file access and printing. Like the SMB protocol, CIFS runs using the Internet's TCP/IP protocol.

The CIFS daemon (CIFSd) supports transparent connections through the security gateway. Here it is the responsibility of the target System Message Block (SMB) server to perform any required user authentication. With non-transparent connections, the CIFS daemon uses the Network Address Translation (NAT) functionality.

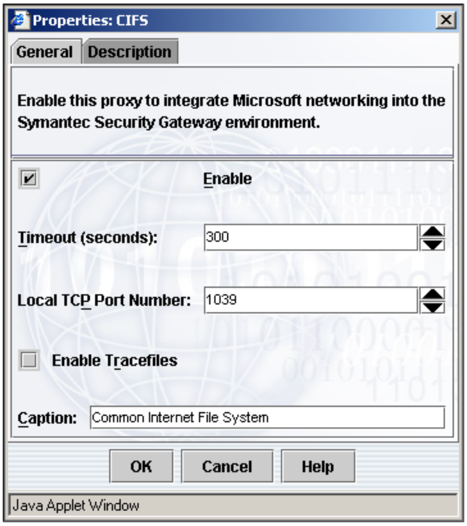
The CIFS protocol supports:

- Access to files that are local to the server, including reading and writing to them
- File sharing with other clients using special locks
- Automatic restoration of connections in case of network failure
- Use of Unicode file names

### To configure the CIFS proxy

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, right-click **CIFS** and select **Properties**.



Enable this proxy to integrate Microsoft networking into the Symantec Security Gateway environment.

☑ Enable

Timeout (seconds): 300

Local TCP Port Number: 1039

□ Enable Tracefiles

Caption: Common Internet File System

4 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the CIFS proxy, check **Enable**. This check box is checked by default. |
| Timeout (seconds) | Use the buttons to select the CIFS proxy timeout interval in seconds. This is the amount of time that can pass for a remote response to be received before timing out. The default is 300 seconds (five minutes). |
| Local TCP Port Number | Use the buttons to select the CIFS port number to be used for incoming SMB packets. This is the port number the VPN driver uses to remap the usual SMB port of 1039. If some other process is already using port 1039, use this text box to change this port to a port number that does not conflict. For CIFS connections to clients using Microsoft Windows 2000, set this to port 445. |
| Enable Tracefiles | To record tracefiles of protocol sequences, check **Enable Tracefiles**. This is useful for analyzing problems between the security gateway and CIFS/SMB clients and servers. This check box is unchecked by default. |
| Caption | Type a brief description of the CIFS proxy. |

5. On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
6. Click **OK**.
7. In the Proxies window, click **Apply**.
8. On the Selection Menu, click **Activate**.
   The CIFS proxy is now configured for use.

You must reboot the security gateway before using CIFS rules.

## DNS proxy

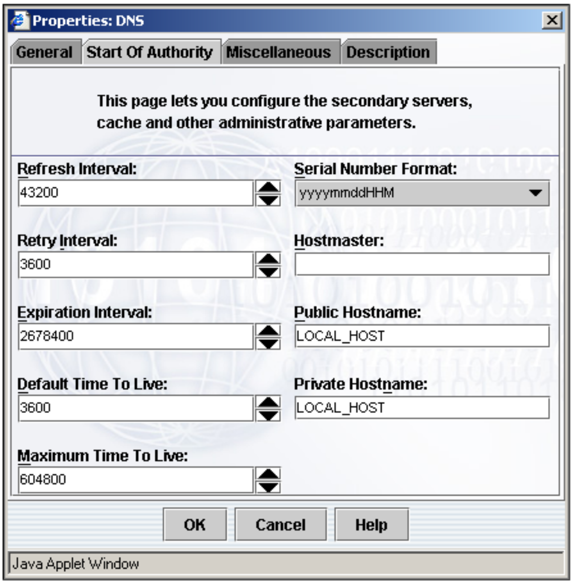
The DNSD Properties window contains controls that ship with pre-set DNS proxy settings.

The DNS proxy is enabled by default. You should not change default settings unless you completely understand the ramifications or have been instructed to change these settings by Symantec Technical Support.

### To configure the DNS proxy

1. In the SESA Console, in the left pane, click **Location settings**.
2. In the right pane, on the Advanced tab, click **Proxies**.
3. In the Proxies table, right-click **DNS** and select **Properties**.
4. On the General tab, to enable the DNS proxy, check **Enable**.
   This check box is checked by default.
5. In the Caption text box, type a brief description of the DNS proxy.

6 On the Start of Authority tab, configure the following values:



This page lets you configure the secondary servers, cache and other administrative parameters.

Refresh Interval: 43200

Serial Number Format: yyyymmddHHM

Retry Interval: 3600

Hostmaster:

Expiration Interval: 2678400

Public Hostname: LOCAL_HOST

Default Time To Live: 3600

Private Hostname: LOCAL_HOST

Maximum Time To Live: 604800

Refresh Interval

Specify a value to tell configured secondary name servers how often to check with the system on the accuracy of the secondary name server's DNS database. If there is a discrepancy, a DNS zone transfer of information occurs between the master and secondary databases when this interval expires. The default is 43200 seconds (12 hours).

Retry Interval

Specify a retry interval (in seconds). If the secondary server fails to reach the master name server after the refresh interval expires, then the secondary server tries to reconnect to the master again after the amount of time specified here. This value is usually shorter than the refresh interval. The default is 3600 seconds (one hour).

Expiration Interval

Specify an expiration interval (in seconds). If the secondary server fails to reach the master name server in the amount of time specified here, the secondary name server's database expires. This means it is assumed the secondary database information is outdated and it therefore stops giving out answers based on this database. The default is 2678400 seconds (31 days).

Default Time To Live

Specify a value to represent how long lookup answers are cached by the name servers and name clients that query the system for DNS lookups. The configurable range is between 600 (10 minutes) and 86400 (24 hours). The default is 3600 seconds (one hour).

Maximum Time To Live

Specify a value to represent how often DNSD refreshes its cache entries. This way, if a host receives an answer from a DNS server that has a Time to Live that is longer than the value designated here, DNSD sets the answer's actual Time to Live to the value entered here. The configurable range is between 900 (15 minutes) and 2678400 (31 days). The default is 604800 (seven days).

Serial Number Format

Select a serial number format. Each time the DNS database is modified on the host, it creates a unique identifier for the copy it makes. DNSD uses the DNS "last modified" timestamp as its identifier or Serial Number for the database copy. The Serial Number Format field lets you select a format for the timestamp identifier. It can be up to 10 characters. The default is yyyymmddHHM.

Hostmaster

Type the email address of the system administrator here. This address is then passed along to other name servers and can be queried so that others know who to contact in case of a problem. This address should be in the format "account.server" and not "account@server."

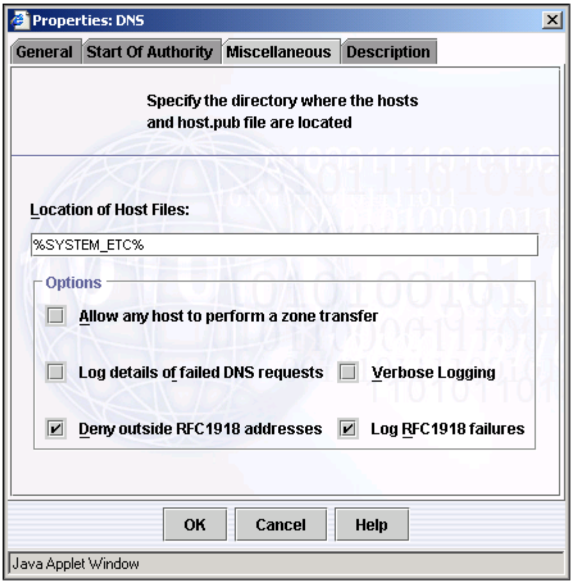
Public Hostname

Type the host name if this is a public host. The default LOCAL_HOST is a keyword that will be converted to the default system's fully-qualified domain name internally. This is the DNS name that the system advertises itself as to name servers and clients on the outside network.

Private Hostname

Type the host name if this is a private host. The default LOCAL_HOST is a keyword that will be converted to the default system's fully-qualified domain name internally. This is the DNS name that the system advertises itself as to name servers and clients on the outside network.

7 On the Miscellaneous tab, configure the following:



Specify the directory where the hosts and host.pub file are located

Location of Host Files: %SYSTEM_ETC%

Options

☐ Allow any host to perform a zone transfer

☐ Log details of failed DNS requests ☐ Verbose Logging

☑ Deny outside RFC1918 addresses ☑ Log RFC1918 failures

Location of Host Files

Type the path to the DNS hosts and hosts.pub files. The default (%SYSTEM_ETC%) will find the /etc directory on most platforms.

Allow any host to perform a zone transfer

Select the check box to allow zone transfers. This check box is unchecked by default.

This check box controls whether zone transfers of information are permitted to all hosts. This box must be checked for this to occur. Also the nslookup ls command is implemented by a zone transfer. If this check box is enabled, users running nslookup can effectively perform a zone transfer. In that case, you want to uncheck this feature.

Log details of failed DNS requests

Select the check box to log failed DNS operations. This check box is unchecked by default.

This option provides useful information in the logfile for troubleshooting DNS problems.

Verbose logging

Select the check box to log all DNS activity. This check box is unchecked by default.

This option provides further logfile information.

| | |
|---|---|
| Deny outside RFC1918 addresses | Select the check box to deny RFC1918 addresses. This check box is unchecked by default.<br>When this check box is checked, lookup responses received from the outside interface that contain such addresses (RFC1918) are denied. If you are using reserved addresses on the outside interface of your security gateway, uncheck this check box. |
| Log RFC1918 failures | Select the check box to log each RFC1918 address denial. This check box is unchecked by default. |

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the Proxies window, click **Apply**.

11 On the Selection Menu, click **Activate**.
The DNS proxy is now configured for use.

## FTP proxy

File Transfer Protocol (FTP) is a TCP based connection-oriented protocol that lets clients log onto a remote FTP server to transfer or manage files. These utilities also let you remotely manage directories for those servers. Connection-oriented means that the communications session is established between the client and the server before data is transmitted.

The FTP proxy is enabled by default. Timeout and port restrictions all have default settings that you should not change unless you completely understand the ramifications or have been instructed to change these settings by Technical Support.

### To configure the FTP proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, right-click **FTP** and select **Properties**.

4 On the General tab, to enable the FTP proxy, check **Enable**.
This checkbox is checked by default.

5 In the Greeting Message text box, you can type a customized message to display to FTP users connecting to the security gateway.

6 In the Caption text box, type a brief description of the FTP proxy.

7 On the Timeout tab, in the Data Transfer Timeout for Data Connections text box, type the timeout interval (in seconds) for FTP transfers.

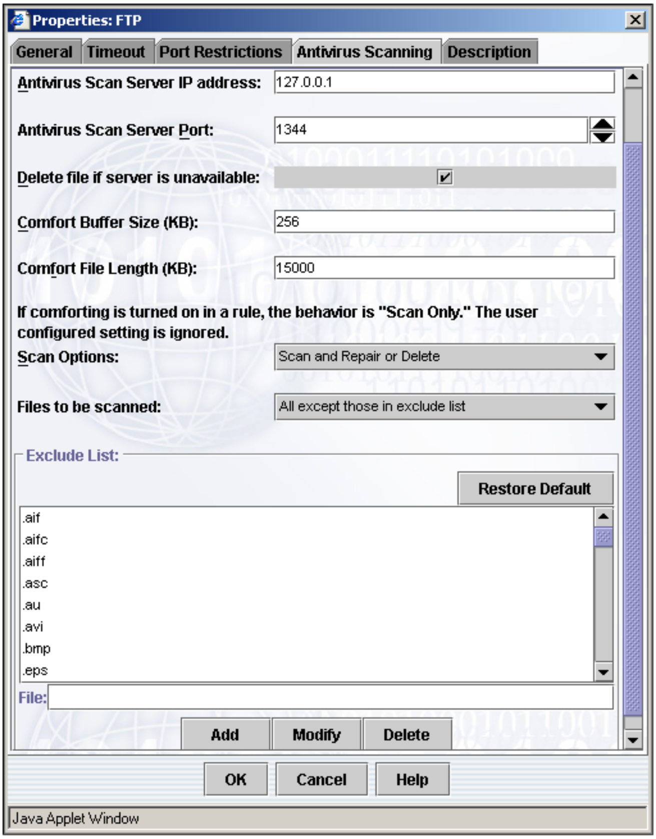
This value sets a time limit on a connection if it remains inactive. After this period of time, the connection is automatically closed. The default is 900 seconds (15 minutes).

8 On the Port Restrictions tab, select the level of FTP access by selecting one of three option buttons:

- Blocks data connections to ports < 1024
- Blocks data connections to named ports < 1024
- Allow data connections to all ports

  Blocks data connections to ports < 1024 is the most restrictive setting and is checked by default. Settings other than the default may allow attacks based on low reserved port numbers.

9 On the Antivirus Scanning tab, configure the following:



Properties: FTP

Antivirus Scan Server IP address: 127.0.0.1

Antivirus Scan Server Port: 1344

Delete file if server is unavailable: ☑

Comfort Buffer Size (KB): 256

Comfort File Length (KB): 15000

If comforting is turned on in a rule, the behavior is "Scan Only." The user configured setting is ignored.

Scan Options: Scan and Repair or Delete

Files to be scanned: All except those in exclude list

Exclude List:

.aif
.aifc
.aiff
.asc
.au
.avi
.bmp
.eps

File:

| | |
|---|---|
| Antivirus Scan Server IP address | Type the IP address of the remote antivirus scan server. |
| Antivirus Scan Server Port | Type the port number for the antivirus scan server. The default is port 1344. |
| Delete file if server is unavailable | To delete files when the server is down, check this check box. This check box is checked by default. |
| Comfort Buffer Size | Type the maximum size (in KB) of the comfort buffer. The default is 256 KB. |
| Comfort File Length | Type the maximum length (in KB) of the comfort file. The default is 15000 KB. |

| | |
|---|---|
| Scan Options | Select the scan option. The options are Scan and Repair or Delete and Scan and Delete. The default is Scan and Repair or Delete. In the default state, the server only deletes files if it cannot repair them.<br>If comforting is enabled on the rule, the antivirus component will scan and delete only, regardless of this setting. |
| Files to be scanned | Select the files to scan for viruses. The options are All except those in exclude list and All files. The default is All except those in exclude list. |
| Exclude List | To add a file type to the Exclude List, type the file type in the File text box and click **Add**.<br>To delete or modify an entry in the Exclude List, highlight the entry and click **Delete** or **Modify**.<br>To restore the Exclude List to its original state, click **Restore Default**. |

10 On the Description tab, you can type a more detailed description than you typed on the General tab in the Caption text box.

11 Click **OK**.

12 In the Proxies window, click **Apply**.

13 On the Selection Menu, click **Activate**.
The FTP proxy is now configured for use.

## GSP proxy

You can use the Generic Service Proxy (GSP) to configure generic services to allow security gateways to pass services that are not predefined on the security gateway.

By default, the GSP handles all generic service requests transparently. These requests are proxied to their destinations as if the requester was directly connected to the remote destination machine. All connections are subject to the security gateway’s authorization rules.

Once defined, generic services selected from the list of services can be used in authorization rules along with the standard services supported by the security gateway. Like standard services (such as Telnet, FTP, and HTTP), custom generic services appear on ports to external hosts attempting to access them as ports on the security gateway.

If you plan to select a GSP in a service group for any of your rules, you must make sure that the relevant GSP service is enabled on the GSP Properties window General tab. The four available check boxes are enabled by default.

Generally you should not have to change any existing GSP default settings.

---

**Note:** Custom or "generic" services include any service not supported by one of the Symantec application proxies.

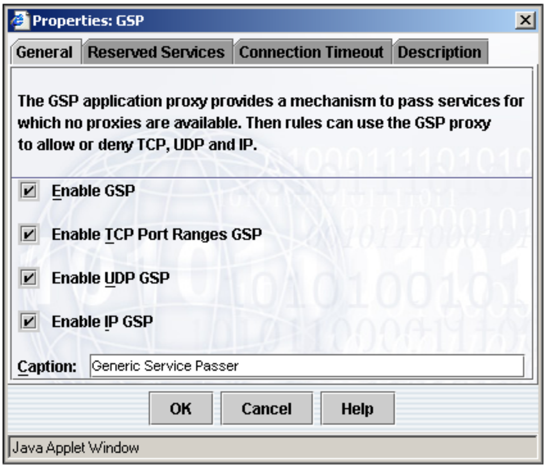
---

### To configure the GSP proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, right-click **GSP**, then click **Properties**.



The GSP application proxy provides a mechanism to pass services for which no proxies are available. Then rules can use the GSP proxy to allow or deny TCP, UDP and IP.

☑ Enable GSP

☑ Enable TCP Port Ranges GSP

☑ Enable UDP GSP

☑ Enable IP GSP

Caption: Generic Service Passer

4 On the General tab, to enable the GSP proxy, check **Enable GSP**.
This check box enables TCP GSP services and is checked by default.

5 To enable TCP port ranges, check **Enable TCP Port Ranges GSP**.
This check box enables large port ranges (over 1000) to work when a TCP-based GSP is selected in a rule. This check box is checked by default.

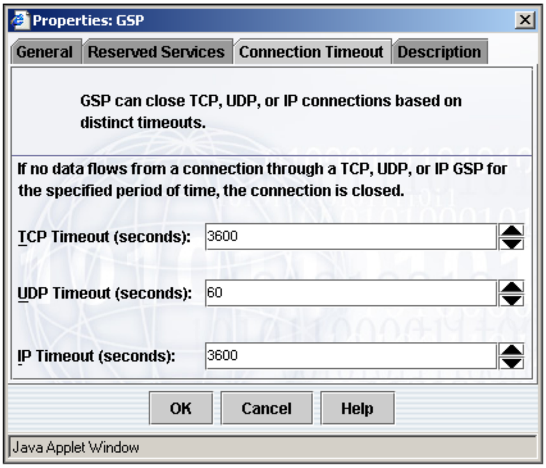
6 To enable GSP for UDP protocols, check **Enable UDP GSP**.
This check box enables UDP GSP services and is checked by default.

7 To enable GSP for IP Protocols, check **Enable IP GSP**.
This check box enables IP GSP services and is checked by default.

8 In the Caption text box, type a brief description of the GSP proxy.

9 On the Reserved Services tab, to enable the use of reserved services, check **Allow Reserved Services**.
This option allows GSP to use Telnet and FTP ports. This is normally not allowed to prevent misconfigurations. This check box is unchecked by default.

10 On the Connection Timeout tab, in the TCP Timeout box, use the buttons to select the GSP timeout (in seconds) for TCP connections.
This value determines the amount of inactivity time allowed for TCP-based GSP connections before they are terminated. The default is 3600 seconds (one hour).



GSP can close TCP, UDP, or IP connections based on distinct timeouts.

If no data flows from a connection through a TCP, UDP, or IP GSP for the specified period of time, the connection is closed.

TCP Timeout (seconds): 3600

UDP Timeout (seconds): 60

IP Timeout (seconds): 3600

11 In the UDP Timeout box, use the buttons to select the GSP timeout (in seconds) for UDP connections.
This value determines the amount of inactivity time allowed for UDP-based GSP connections before they are terminated. The default is 60 seconds (one minute).

12 In the IP Timeout box, use the buttons to select the GSP timeout (in seconds) for IP connections.
This value determines the amount of inactivity time allowed for IP-based GSP connections before they are terminated. The default is 3600 seconds (one hour).

13 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

14 Click **OK**.

15 In the Proxies window, click **Apply**.

16 On the Selection Menu, click **Activate**.
The GSP proxy is now configured for use.

## H.323 proxy

Symantec security gateways support the H.323 standard for audio and video data communications over the Internet. Programs using the H.323 standard communicate over the Internet and interact with other H.323 compliant systems.

While several products use H.323, the following sections refer to two common products, Microsoft NetMeeting and Intel Videophone. Configuration of other products may vary.

The security gateway does not support all elements of the H.323 standard. The following elements are not supported.

- Multicast addressing
  Multicast addressing sends packets to multiple specified addresses. Symantec only supports unicast addressing (multiple point-to-point transmissions).
- The security gateway does not support LDAP with H.323 at this time.

---

**Note:** Data conferencing (chat, white board, and application sharing) through the T.120 standard is fully supported.

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### To configure the H.323 proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

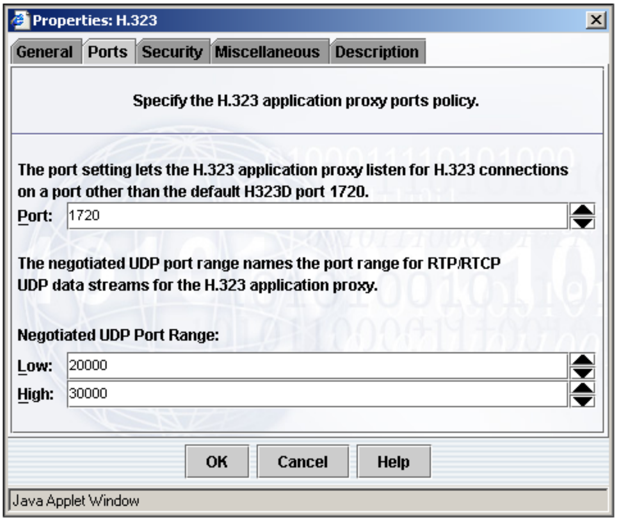
3 In the Proxies table, click **H.323**, then click **Properties**.

4 On the General tab, to enable the H.323 proxy, check **Enable H.323**.
This check box is checked by default.

5 In the Caption text box, type a brief description of the H.323 proxy.

6 On the Ports tab, in the Port box, use the buttons to select the port on which the H.323 proxy listens for H.323 connections.

The default is port 1720. This is the standard for H.323 requests. It should only be changed if you have a conflict and are instructed to do so by Symantec Technical Support.



Properties: H.323

Specify the H.323 application proxy ports policy.

The port setting lets the H.323 application proxy listen for H.323 connections on a port other than the default H323D port 1720.

Port: 1720

The negotiated UDP port range names the port range for RTP/RTCP UDP data streams for the H.323 application proxy.

Negotiated UDP Port Range:

Low: 20000

High: 30000

7 In the Negotiated UDP Port Range Low box, use the buttons to select the lower end of the port range for UDP data streams.

The default is 20000. The port range negotiated for RTP/RTCP UDP data streams is 20000 to 30000. It should only be changed if you have a conflict and are instructed to do so by Symantec Technical Support.

8 In the Negotiated UDP Port Range High box, use the buttons to select the upper end of the port range for UDP data streams.

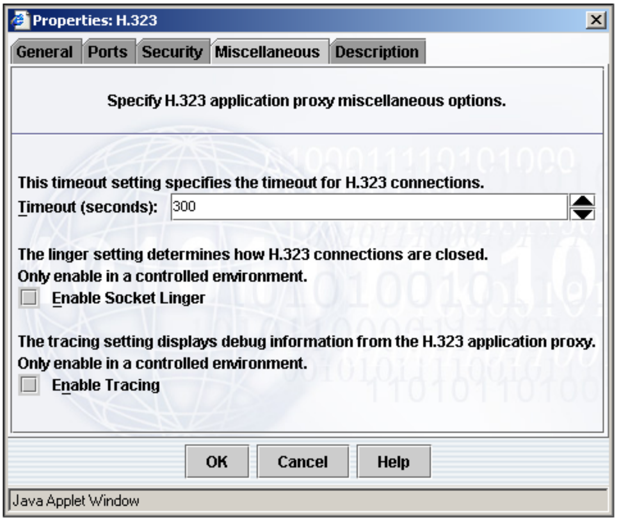
The default is 30000. The port range negotiated for RTP/RTCP UDP data streams is 20000 to 30000. It should only be changed if you have a conflict and are instructed to do so by Symantec Technical Support.

9 On the Security tab, select security gateway interfaces in the Strict Security list and click the right-arrow (>>) button to move them into the Loose Security list to allow connections without H.323 aliases.

Aliases are required to access all interfaces unless specified otherwise. A Strict security policy, the default, will only connect the call if the h323alias file contains the CalleeAliasName and a corresponding target hostname. A Loose security policy allows users to supply the hostname (or IP address) of the caller without requiring a successful lookup.

10 On the Miscellaneous tab, in the Timeout (seconds) list box, use the buttons to select the timeout interval (in seconds) for H.323 connections.

If there is no activity for any H.323 session for this period of time, the H.323 session which has met this timeout is closed by the H.323 daemon. The default is 300 seconds (five minutes).



Specify H.323 application proxy miscellaneous options.

This timeout setting specifies the timeout for H.323 connections.

Timeout (seconds): 300

The linger setting determines how H.323 connections are closed.
Only enable in a controlled environment.

☐ Enable Socket Linger

The tracing setting displays debug information from the H.323 application proxy.
Only enable in a controlled environment.

☐ Enable Tracing

11 To enable the socket linger feature, which defines how connections are closed, check **Enable Socket Linger**.
Only enable in a controlled environment. This check box is unchecked by default.

12 To enable tracing of debug information, check **Enable Tracing**.
Only enable in a controlled environment. This check box is unchecked by default.

13 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

14 Click **OK**.

15 In the Proxies window, click **Apply**.

16 On the Selection Menu, click **Activate**.
The H.323 proxy is now configured for use.

# Configuring H.323 aliases

Symantec security gateways support H.323. H.323 is a standard for audio, video, and other data communications over the Internet. Programs using the H.323 standard can communicate over the Internet and interoperate with other H.323-compliant systems.

While several products use H.323, this section refers to two common products, Microsoft NetMeeting and Intel Videophone. Configuration for other products may vary.

## Establishing inbound H.323 connections

In most cases, the security gateway is used to hide the addresses of machines behind it from the Universe. Unless an address transform is configured to reveal the addresses of machines behind the security gateway, connecting clients see only the security gateway's outside interface address. To receive inbound H.323 connections from the behind the security gateway when the internal network address is hidden (non-transparent), additional configuration is required.

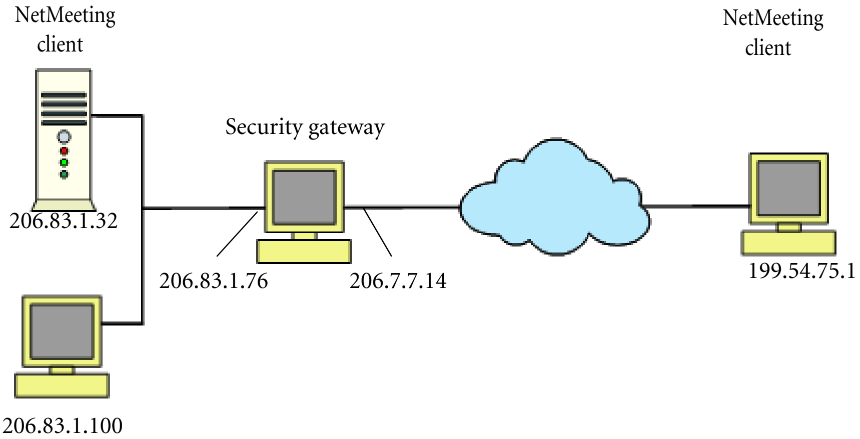
## Non-transparent connections

For non-transparent connections, you must do two things for the connection to find its final destination:

- Create an alias file
- Establish an H.323 security gateway on the remote NetMeeting Client (NetMeeting only)

In the figure below, the inside client's address is hidden. The outside user sees the outside interface of the host system.

Figure 7-1 Sample H.323 connections



In this case, the connection that the external host sees is between the two NetMeeting clients, but instead of revealing the 206.83.1.32 address of the internal client, the security gateway provides only its own outside interface address, that is, 206.7.7.14.

## Direct access connections

With address transforms, the security gateway lets you reveal inside addresses to an outside server, giving the appearance of direct access. For outbound connections, direct access reveals information about your private network to people on the Internet. Do not set up direct access for any service until you consider the security implications.

Although direct access carries a security risk, it makes using H.323 applications easier. If you use an address transform, it is not necessary to enter the IP address of the security gateway as the H.323 gateway in NetMeeting or to maintain an alias file.

## Creating an alias file on the gateway system

When an inbound H.323 connection finds the system, the alias file you create lets it locate the hidden inside address of its final destination. The aliases you create here are eventually typed into the H.323 client interface, must be unique, and are not case sensitive. You can create the h323alias file using the H.323 Alias Properties window.

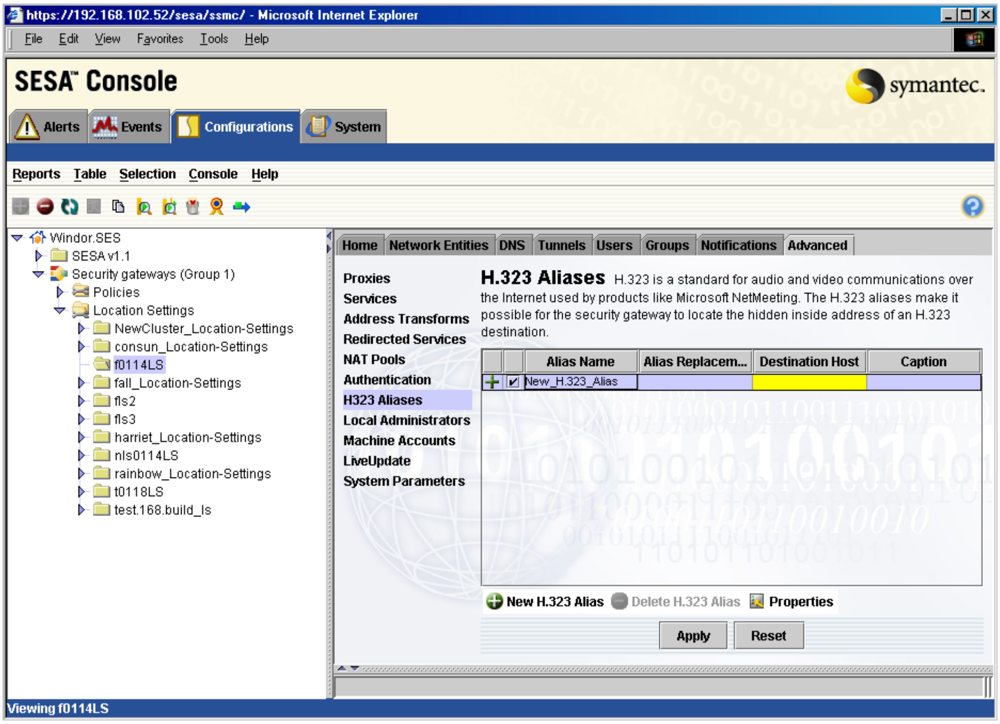
This file is a plain text file containing the alias, alias replacement, and host name or IP address, separated by one or more spaces as in the following sample file.

```
john jack wkst1
jdoe@mno.com jenny 206.73.7.54
jsmith@mno.com jsmith@mno.com wkst8
“sheraton” “sheraton” wkstb5
susan “ ” 206.73.7.14
```

### To create an alias file

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **H.323Aliases**.

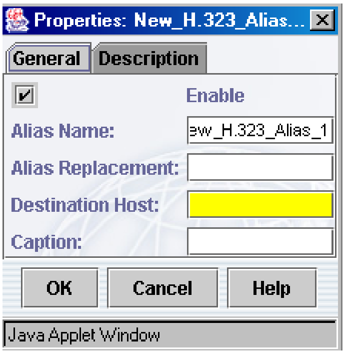


**H.323 Aliases** H.323 is a standard for audio and video communications over the Internet used by products like Microsoft NetMeeting. The H.323 aliases make it possible for the security gateway to locate the hidden inside address of an H.323 destination.

| | | Alias Name | Alias Replacem... | Destination Host | Caption |
|---|---|---|---|---|---|
| + | ☑ | New_H.323_Alias | | | |

3 Click **New H.323 Alias**.

4 Click **Properties**.



☑ Enable

Alias Name: ew_H.323_Alias_1

Alias Replacement:

Destination Host:

Caption:

5 In the Properties window, on the General tab, to enable H.323 aliases, check **Enable**.
This check box is checked by default.

6 In the Alias Name text box, type the name of the H.323 alias.
The alias name must be all numeric for use with NetMeeting. The alias can be an email address or alphanumeric characters for other clients.

7 In the Alias Replacement text box, type the alias to be used to replace the name.

8 In the Destination Host text box, type the IP address or fully-qualified domain name of the destination host.

9 In the Caption text box, type a brief description of the H.323 alias.

10 Repeat steps 6 through 9 for any additional aliases.

11 On the Description tab, you can add a detailed description of the alias entries.

12 Click **OK**.

13 In the H.323 Aliases window, click **Apply**.

14 On the Selection Menu, click **Activate**.
The H.323 alias is now configured for use.

## HTTP proxy

The Hypertext Transfer Protocol (HTTP) is an application-level protocol which relies on existing underlying communication protocols for distributed, collaborative, hyper-media information systems. It is a generic, stateless, object-oriented protocol which can be used for many tasks, such as name servers and distributed object management systems, through extension of its request methods (commands).

Because it is one of the most widely used protocols, HTTP is configurable in a number of different ways.

### To configure the HTTP proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 On the Selection Menu, click **Activate**.
The HTTP proxy is now configured for use.

## NBDGRAM proxy

The NBDGRAM (NetBIOS Datagram) proxy transports NetBIOS traffic over UDP port 138, subject to the system's authorization rules. It modifies the NetBIOS header to contain the correct source IP address and port number as seen by the recipient of the packet. This solves the problem of NetBIOS being unable to respond to received packets because the specified source in the NetBIOS header is not the actual source of the User Datagram Protocol (UDP) packet.

This proxy is most useful in cases where NetBIOS services need to pass through the system, but some sort of non-standard routing or address hiding is in effect. For example, if clients are coming in over secure tunnels, but the default route from the Primary Domain Controller (PDC) to the clients will not pass through the specified tunnel, the NetBIOS Datagram proxy can resolve this problem. The proxy inserts the IP address that needs to be seen by the PDC into the UDP packet payload. The PDC is then able to send its response to the client using the correct route.

### To configure the NBDGRAM proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, click **NBDGRAM**, and then click **Properties**.

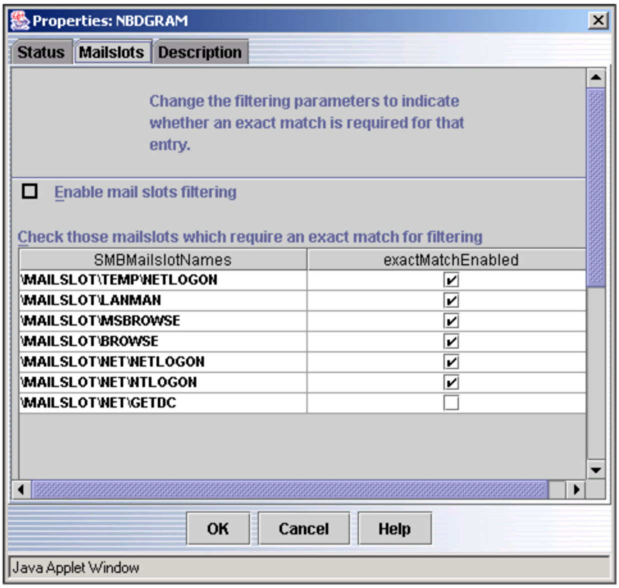
4 On the General tab, to enable the Nbdgram proxy, check **Enable**.
This check box is checked by default.

5 To log UDP broadcasts, click **Log UDP broadcasts**.

This feature controls whether an entry appears in your log file for dropped UDP broadcast packets. By default this feature is disabled so that your log file does not fill with these event messages.

6 In the Caption text box, type a brief description of the NBDGRAM proxy.

7 On the Mailslots tab, to turn on SMB filtering, check **Enable mail slots filtering**.
This check box is unchecked by default.



Change the filtering parameters to indicate whether an exact match is required for that entry.

□ Enable mail slots filtering

Check those mailslots which require an exact match for filtering

| SMBMailslotNames | exactMatchEnabled |
|---|---|
| \MAILSLOT\TEMP\NETLOGON | ☑ |
| \MAILSLOT\LANMAN | ☑ |
| \MAILSLOT\MSBROWSE | ☑ |
| \MAILSLOT\BROWSE | ☑ |
| \MAILSLOT\NET\NETLOGON | ☑ |
| \MAILSLOT\NET\NTLOGON | ☑ |
| \MAILSLOT\NET\GETDC | □ |

8 For each of the mail slots you want to filter, check **ExactMatchEnabled**.
If the check box for an entry is checked, an exact match is required for entry. If it is not checked, only a prefix match for that entry is required.

9 To add an entry to the mailslots table, click **Add** and type the new mailslot name.

10 To delete a mailslot entry, highlight the entry, and then click **Delete**.

11 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

12 Click **OK**.

13 In the Proxies window, click **Apply**.

14 On the Selection Menu, click **Activate**.
The NBDGRAM proxy is now configured for use.

## NNTP proxy

The Network News Transfer Protocol (NNTP) has existed since 1986, and NNTP news servers have long been the targets of attacks. Much of this is because the management of news servers has, until recently, been unauthenticated. Anyone with access to a Telnet utility can connect to a news server and type in news articles or commands in an attempt to corrupt the USENET newsgroups.

There are several possible traffic patterns that the NNTP proxy can accommodate, including:

- Users behind the security gateway with news reader programs trying to access external news servers.
  You may want to filter the newsgroups users can access (by newsgroup name, by rating, or by IP address). You may want to disable posting of new articles. You may want to authenticate users or restrict the time of day they can access newsgroups.
- Users behind the security gateway accessing internal news servers.
  The internal news servers get feeds from external news servers. You may want to control which newsgroups are downloaded between servers and what time of day the downloads can occur. You may want to authenticate the external news server or allow only external news servers with specific IP addresses to feed the internal news server.
- External users with news reader programs accessing internal news servers.
  You want to authenticate the users because they are likely employees at home or on the road trying to access the internal news server.

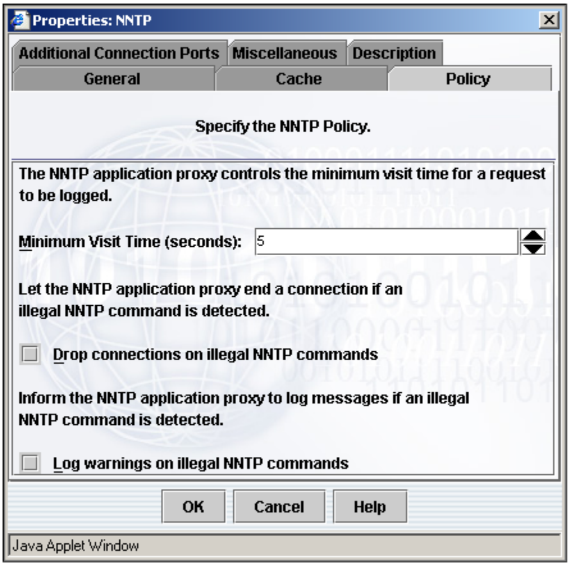
The following commands are not supported by the NNTP proxy at this time: CHECK, TAKETHIS, XINDEX, XPATH, XROVER, XTHREAD.

### To configure the NNTP proxy

1. In the SESA Console, in the left pane, click **Location settings**.
2. In the right pane, on the Advanced tab, click **Proxies**.
3. In the Proxies table, click **NNTP**, then click **Properties**.
4. On the General tab, to enable the NNTP proxy, check **Enable**.
   This check box is checked by default.
5. In the Caption text box, type a brief description of the NNTP proxy.
6. On the Cache tab, in the Cache Increment drop-down list, select the cache increment (in bytes).
   This value represents the number of bytes by which a connection’s news article cache is increased each time a news article is too large for the cache. The default is 4096 bytes (4 KB).

7 In the Cache Maximum drop-down list, select the cache maximum (in bytes).
This value represents the maximum size, in bytes, that a connection's news article cache can reach. You may want to increase this value if the files you are transferring contain large graphic images. The default is 65536 bytes (64 KB).

8 On the Policy tab, in the Minimum Visit Time drop-down list, select the minimum visit time (in seconds).
This value controls the frequency at which NNTP logs statistics events when users switch from one newsgroup to another. The user must stay in a newsgroup for as long as this designated amount in order for the event to be logged. The default is five seconds.



Specify the NNTP Policy.

The NNTP application proxy controls the minimum visit time for a request to be logged.

Minimum Visit Time (seconds): 5

Let the NNTP application proxy end a connection if an illegal NNTP command is detected.

□ Drop connections on illegal NNTP commands

Inform the NNTP application proxy to log messages if an illegal NNTP command is detected.

□ Log warnings on illegal NNTP commands

9 To kill invalid NNTP connections, check **Drop connections on illegal NNTP commands**.
When this is checked, the NNTP connection is automatically dropped if a command or response that is not designated in RFC-977 or an article that does not comply with RFC-1036 is received. This check box is unchecked by default.

10 To log illegal NNTP commands, check **Log warnings on illegal NNTP commands**.
When this is checked, a warning message is logged if an illegal NNTP connection is dropped. This check box is unchecked by default.

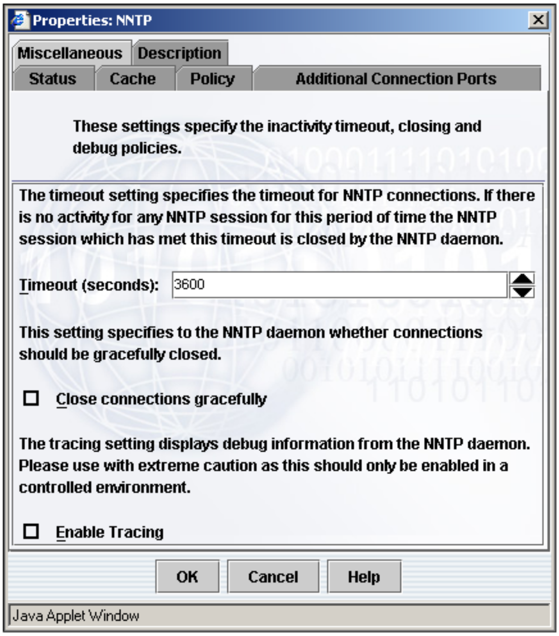
11 On the Additional Connection Ports tab, you can configure the NNTP proxy to listen on ports in addition to the default port 119 by typing the port numbers in the value text box and clicking **Add**.

This is useful to get to sites with non-standard port numbers.

If you add additional ports, you must create a service group with the NNTP protocol and the Use GSP check box unchecked.

12 On the Miscellaneous tab, in the Timeout drop-down list, select the timeout interval (in seconds).

This value determines how long an NNTP connection is permitted to remain inactive before it is terminated. The default is 3600 seconds (one hour).



These settings specify the inactivity timeout, closing and debug policies.

The timeout setting specifies the timeout for NNTP connections. If there is no activity for any NNTP session for this period of time the NNTP session which has met this timeout is closed by the NNTP daemon.

Timeout (seconds): 3600

This setting specifies to the NNTP daemon whether connections should be gracefully closed.

□ Close connections gracefully

The tracing setting displays debug information from the NNTP daemon. Please use with extreme caution as this should only be enabled in a controlled environment.

□ Enable Tracing

13 To close connections gracefully, check **Close connections gracefully**.

With this is checked, connections are closed gracefully. If this is unchecked, NNTP does a hard close. This feature should remain enabled if accessed news servers log error messages when NNTP connections go away. This check box is unchecked by default.

14 To log NNTP information, check **Enable Tracing**.

This check box controls whether tracefiles of protocol sequences are recorded. This can be useful for analyzing problems between the security gateway and new clients. However, this check box is unchecked by default and should be used with extreme caution.

15 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

16 Click **OK**.

17 In the Proxies window, click **Apply**.

18 On the Selection Menu, click **Activate**.
The NNTP proxy is now configured for use.

### Authentication with the NNTP proxy

The security gateway can support only those authentication systems that do not require the proxy to interact with the user. For example, the NNTP proxy can support gateway password and RSA SecurID authentication schemes, but it cannot support Bellcore S/Key.

When news readers prompt users for their names and passwords, they do not usually indicate what kind of password is being requested (although the NNTP protocol gives them enough information to do so). However, it is possible to type challenge-less one-time passwords as the clear-text password, as long as the user knows ahead of time what kind of scheme is being used. The NNTP proxy simply passes the user name and password into whatever authentication scheme is enabled for the rule.

Also, it is possible for both the security gateway and the news server to require authentication. The security gateway can also require a news server to authenticate before allowing a news feed.

## NTP proxy

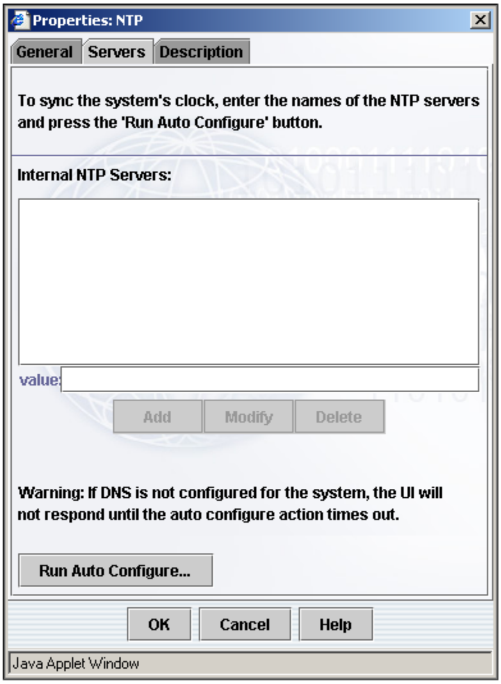
The Network Time Protocol (NTP) is used to synchronize the time of a computer client or server to another server or reference time source. It provides client accuracies typically within a millisecond on LANs and up to a few tens of milliseconds on WANs relative to a primary server synchronized to Coordinated Universal Time using a Global Positioning Service receiver.

You must point internal clients to the nearest interface of the security gateway for NTP. They cannot query outside NTP servers. When you click Run Auto Configure, the NTP daemon checks a list of the closest Internet NTP servers to retrieve the correct time setting.

Before restarting the security gateway, verify that the system’s internal clock is correct. If the system time is too far off, the NTP server application may refuse to resynchronize it.

### To configure the NTP proxy

1. In the SESA Console, in the left pane, click **Location settings**.
2. In the right pane, on the Advanced tab, click **Proxies**.
3. In the Proxies table, click **NTP**, and then click **Properties**.
4. On the General tab, to enable the NTP proxy, check **Enable**.
   This check box is checked by default.
5. In the Caption text box, type a brief description of the NTP proxy.
6. On the Servers tab, type the names of your internal NTP servers in the value text box and click **Add** to add them to the Internal NTP Servers list.
   These servers are used to synchronize the system clocks.



To sync the system's clock, enter the names of the NTP servers and press the 'Run Auto Configure' button.

Internal NTP Servers:

Warning: If DNS is not configured for the system, the UI will not respond until the auto configure action times out.

7. To modify or delete a server name, highlight it in the list and click **Modify** or **Delete**.
8. To synchronize the security gateway clock, click **Run Auto Configure**.
   This procedure may take several minutes to complete. During this process, the security gateway must be connected to the external network.
   You must point internal clients to the nearest interface of the security gateway for NTP. They cannot query outside NTP servers. If you click Run

Auto Configure, the NTP daemon checks a list of the closest Internet NTP servers to receive the correct time setting.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the Proxies window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The NTP proxy is now configured for use.

## Ping proxy

PINGD handles ICMP echo traffic, letting you ping external networks and receive a response back through the security gateway. Using ping lets you check network connectivity and troubleshoot possible networking problems. However, you must have a service group allowing the ping proxy through the security gateway or else the ping traffic is dropped.

**Note:** When the security gateway passes PING traffic, it does not send the original client data payload in the echo request if the security gateway is not the target of the ping. PINGD constructs a new echo request with a new sequence number, time-to-live (affecting traceroute), and other new optional data so that other protocols cannot be "tunneled" on top of the ICMP echo.

If the security gateway is the target of the ping, PINGD responds to the client normally.

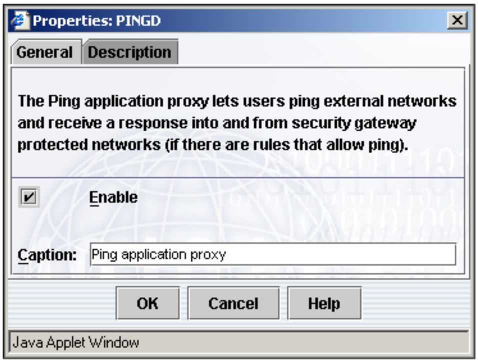
If the ping is sent through a tunnel, and you do not have that tunnel forcing traffic through the proxies, then ping packets are sent unmodified.

### To configure the Ping proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, click **Ping**, and then click **Properties**.



The Ping application proxy lets users ping external networks and receive a response into and from security gateway protected networks (if there are rules that allow ping).

☑ Enable

Caption: Ping application proxy

4 On the General tab, to enable the Ping proxy, check **Enable**.
This check box is checked by default. To allow external Ping, you must check Enable external ping in the Setup Wizard.

5 In the Caption text box, type a brief description of the Ping proxy.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Proxies window, click **Apply**.

9 On the Selection Menu, click **Activate**.
The Ping proxy is now configured for use.

## RCMD proxy

The RCMD proxy implements three services commonly used by UNIX users. Each service listens on a different port. These services are:

exec (rexec) You would use the exec service in a service group when you want to permit a user to execute commands on a UNIX machine on your network. The commands are executed from a remote machine. The default port for this service is port 512.

login (rlogin) The login service is used when you want to allow a user to remotely log into another UNIX machine. Typically, the login information is based upon what is seen on the remote machine, not the local machine. The default port for this service is port 513.

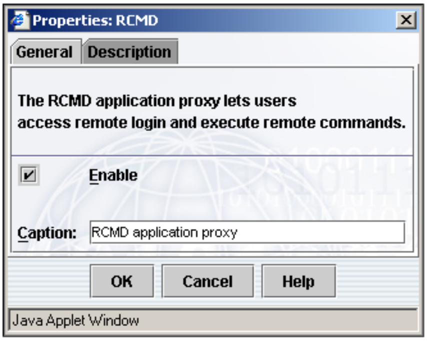
shell (rsh) The shell service in a service group corresponds to the rsh command under UNIX. Most commonly, rsh is used to open a remote shell to another UNIX machine, and to interact with that machine. The default port for this service is port 514.

### To configure the RCMD proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, click **RCMD**, and then click **Properties**.



The RCMD application proxy lets users access remote login and execute remote commands.

☑ Enable

Caption: RCMD application proxy

4 On the General tab, to enable the RCMD proxy, check **Enable**.
This check box is checked by default.

5 In the Caption text box, type a brief description of the RCMD proxy.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Proxies window, click **Apply**.

9 On the Selection Menu, click **Activate**.
The RCMD proxy is now configured for use.

## RTSP proxy

The Real-Time Streaming Protocol (RTSP) proxy handles real time data such as the audio and video produced by RealPlayer and QuickTime. Sources of data can include both live data feeds and stored clips.

The RTSP specification (RFC 2326) establishes and controls either single or several time-synchronized streams of continuous media such as audio and video. It does not typically deliver the continuous streams itself. Rather, RTSP acts as a network remote control for multimedia servers.

There is no notion of an RTSP connection; instead, a server maintains a session labeled by an identifier. An RTSP session is in no way tied to a transport-level connection such as a TCP connection. During an RTSP session, an RTSP client may open and close many reliable transport connections to the server to issue RTSP requests. Alternatively, it may use a connectionless transport protocol such as UDP.

While the RTSP protocol is intentionally similar in syntax and operation to HTTP, an RTSP server needs to maintain state by default in almost all cases, as opposed to the stateless nature of HTTP.

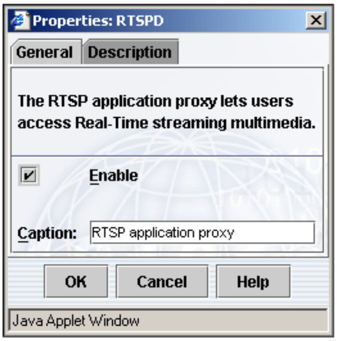
**Note:** When you create a rule for RTSP, you must define a service group which contains both RTSP and HTTP and associate it with the rule or the protocol will not work.

**To configure the RTSP proxy**

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, click **RTSP**, and then click **Properties**.



Properties: RTSPD

The RTSP application proxy lets users access Real-Time streaming multimedia.

☑ Enable

Caption: RTSP application proxy

4 On the General tab, to enable the RTSP proxy, check **Enable**.
This check box is checked by default.

5 In the Caption text box, type a brief description of the RTSP proxy.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8. In the Proxies window, click **Apply**.
9. On the Selection Menu, click **Activate**.
   The RTSP proxy is now configured for use.

## SMTP proxy

The SMTP proxy controls email access through your security gateway. It performs checking on each email connection and scans for known mail-based forms of attack.

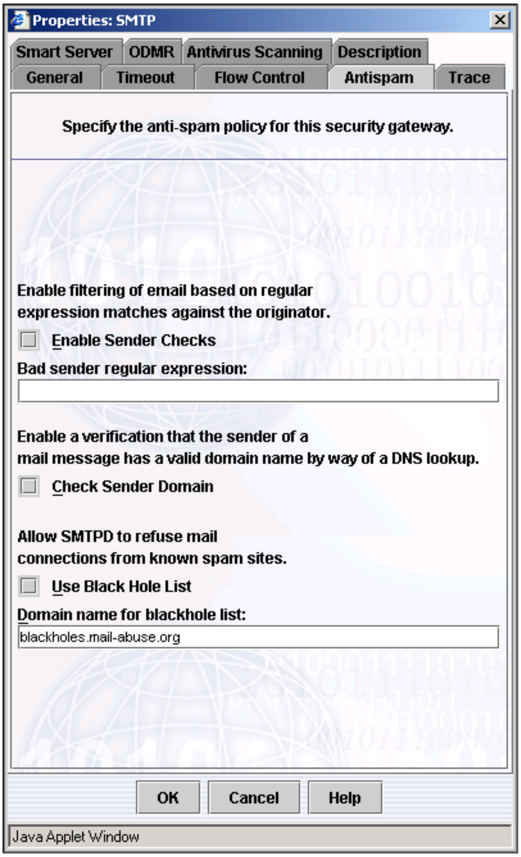
Among other forms of attack, the SMTP proxy protects your internal mail server from being used as a spam relay. You can specify domains for internal users and only messages directed at those domains are accepted. You can also specify maximum recipient counts to protect against wide scale spamming of internal users.

SMTP can be configured both by configuring the SMTP Proxy service, and by configuring SMTP Service Group Properties on a rule by rule basis. On Symantec security gateways, you can also configure SMTP rules when using the System Setup Wizard for the first time.

### To configure the SMTP proxy

1. In the SESA Console, in the left pane, click **Location settings**.
2. In the right pane, on the Advanced tab, click **Proxies**.
3. In the Proxies table, click **SMTP**, and then click **Properties**.
4. On the General tab, to enable the SMTP proxy, check **Enable**.
   This check box is checked by default.
5. In the Greeting Message text box, type a message to display to all SMTP users.
6. In the Caption text box, type a brief description of the SMTP proxy.
7. On the Timeout tab, in the Connection Timeout drop-down list, select the SMTP timeout interval (in seconds).
   This value determines the amount of inactivity time allowed for SMTP connections before they are terminated. The default is 330 seconds (five and one half minutes).
8. On the Flow Control tab, to prevent SMTP flow control checks, check **Disable Flow Control Checking**.
   Flow control checking ensures that flow control checks are enforced. These checks are done to detect attackers. This check box is unchecked by default.

9 On the Antispam tab, to enable filtering of email based on regular expression matches, check **Enable Sender Checks**.
This check box is unchecked by default.



Specify the anti-spam policy for this security gateway.

Enable filtering of email based on regular expression matches against the originator.

□ Enable Sender Checks

Bad sender regular expression:

Enable a verification that the sender of a mail message has a valid domain name by way of a DNS lookup.

□ Check Sender Domain

Allow SMTPD to refuse mail connections from known spam sites.

□ Use Black Hole List

Domain name for blackhole list: blackholes.mail-abuse.org

10 In the Bad sender regular expression text box, type the expression to match against.
Any sender matching the expression you type is denied.

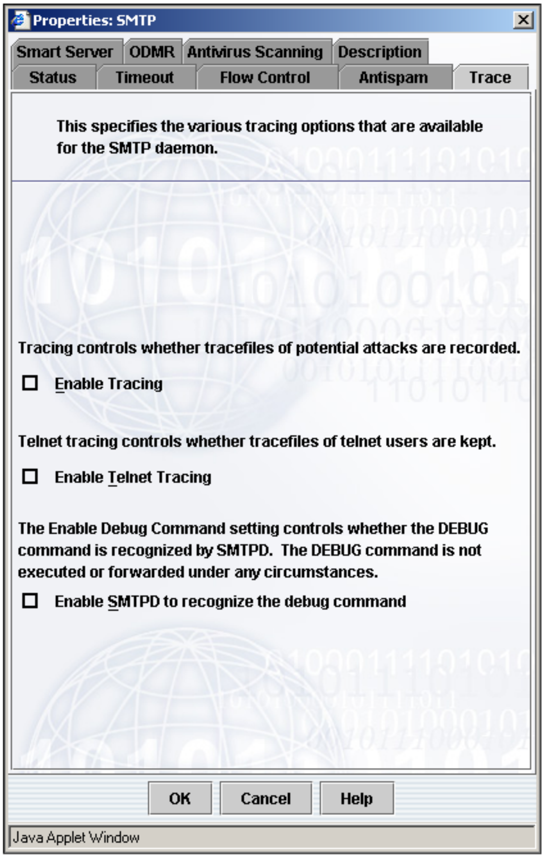
11 To verify that the email source is in a valid domain, check **Check Sender Domain**.
This feature checks to ensure that the sender's address is valid by checking the format, ensuring the domain name is qualified, and checking whether a NS address or MX record exists for the domain name. This check box is unchecked by default.

12 To match email against known spam sites, check **Use Black Hole List**.

The Realtime Blackhole List (RBL) is kept by the Mail Abuse Protection System project. It is a list of known spam originators. If you use this list, any incoming connection attempts will be checked against it and denied if found. This check box is unchecked by default.

13 In the Domain name for blackhole list text box, type the domain for the blackhole list, typically blackholes.mail-abuse.org.

14 On the Trace tab, to record tracefiles of possible attacks, check **Enable Tracing**.
This check box is unchecked by default.



This specifies the various tracing options that are available for the SMTP daemon.

Tracing controls whether tracefiles of potential attacks are recorded.

□ Enable Tracing

Telnet tracing controls whether tracefiles of telnet users are kept.

□ Enable Telnet Tracing

The Enable Debug Command setting controls whether the DEBUG command is recognized by SMTPD. The DEBUG command is not executed or forwarded under any circumstances.

□ Enable SMTPD to recognize the debug command

15 To record tracefiles of Telnet users, check **Enable Telnet Tracing**.
This check box is unchecked by default.

16 To recognize the debug command, check **Enable SMTPD to recognize the debug command**.

The debug command is for Technical Support use only. This check box is unchecked by default.

17 On the Smart Server tab, in the Smart Server text box, to relay outgoing mail if the transparent server is unavailable, type the IP address of an external Smart Server.

This is required only when you experience problems with internal mailers not handling MX rollover.

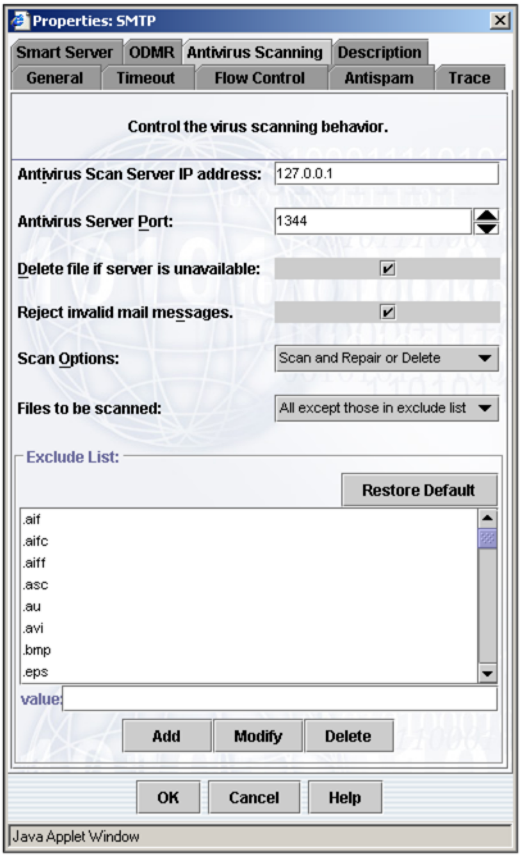
18 On the ODMR tab, to enable the use of the Extended SMTP mail command ATRN (authenticated turn) to provide on-demand mail relay, check **Enable On-Demand Mail Relay**.

You should use this method to allow users to retrieve mail if your server uses a dynamic IP address.

19 In the Port text box, type the TCP port on which on-demand mail relay services are provided.

The default TCP port number 366 is the recommended port to provide on-demand mail relay services. Do not change this port unless advised by Symantec Technical Support.

**20** On the Antivirus tab, do the following:



Control the virus scanning behavior.

Antivirus Scan Server IP address: 127.0.0.1

Antivirus Server Port: 1344

Delete file if server is unavailable: ☑

Reject invalid mail messages. ☑

Scan Options: Scan and Repair or Delete

Files to be scanned: All except those in exclude list

Exclude List:

.aif
.aifc
.aiff
.asc
.au
.avi
.bmp
.eps

value:

| | |
|---|---|
| Antivirus Scan Server IP address | Type the IP address of the remote antivirus server. |
| Antivirus Server Port | Type the port number to be used for virus scanning. The default is port 1344. |
| Delete file if server is unavailable | To delete files when the antivirus server is unavailable, check **Delete file if server is unavailable**. This check box is checked by default. |
| Reject invalid mail messages | To reject invalid mail messages, click **Reject invalid mail messages**. |

| | |
|---|---|
| Scan Options | Select the action to take when an infected file is discovered. The options are Scan and Repair or Delete or Scan and Delete. If you select Scan and Repair or Delete (the default setting), the antivirus server will attempt to repair the infected file and only delete it if it cannot repair the file. |
| Files to be scanned | Select the files to scan. The options are All except those in exclude list or All files. The default is All except those in exclude list. |
| Exclude List | To add files types to the Exclude list, type the file type in the Value text box and then click **Add**. To edit or delete files in the Exclude list, highlight the file and click **Modify** or **Delete**. |
| Restore Default | To restore the Exclude list to its original form, click **Restore default**. |

21 On the Description tab, you can add a more detailed description than you typed on the Status tab in the Caption text box.

22 Click **OK**.

23 In the Proxies window, click **Apply**.

24 On the Selection Menu, click **Activate**.
The SMTP proxy is now configured for use.

## Telnet proxy

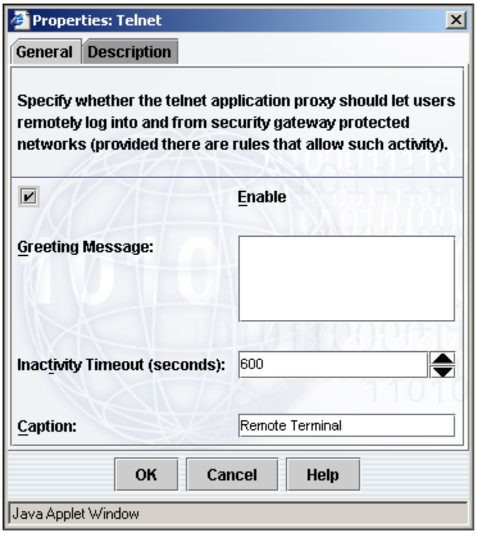
Telnet is a utility that lets you remotely log on to another computer connected on the Internet. Telnet is the Internet's remote log on function. It enables you to connect to a remote computer and interact with it as though you were right there.

### To configure the Telnet proxy

1 In the SESA Console, in the left pane, click **Location settings**.

2 In the right pane, on the Advanced tab, click **Proxies**.

3 In the Proxies table, click **Telnet**, and then click **Properties**.



Specify whether the telnet application proxy should let users remotely log into and from security gateway protected networks (provided there are rules that allow such activity).

☑ Enable

Greeting Message:

Inactivity Timeout (seconds): 600

Caption: Remote Terminal

4 On the General tab, to enable the Telnet proxy, check **Enable**.
This checkbox is checked by default.

5 In the Greeting Message text box, type a message to display to all Telnet users when they log on.

6 In the Inactivity Timeout text box, select the inactivity timeout interval in seconds.
Telnet sessions can often last for hours. You should keep that in mind if you are going to set a timeout limit for a Telnet connection. The default is 600 seconds (ten minutes).

7 In the Caption text box, type a brief description of the Telnet proxy.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the Proxies window, click **Apply**.

11 On the Selection Menu, click **Activate**.
The Telnetproxy is now configured for use.

# Configuring network protocols

The protocol options shipped with the security gateway let you define new protocols to meet your requirements. You can define protocols for two purposes:

- As the basis for the packet filters.
  See "Configuring filters" on page 193.
- As the basis for custom services you define for GSPs and include in service groups that are used in rules.
  See "Configuring service groups" on page 104.

The Protocols window lists a wide variety of commonly-used protocols that you can use for these purposes.

In addition to several special purpose proxies that handle common services, security gateways can pass most services using the Generic Service Proxy (GSP). Once you define your custom service as explained in this section, that service becomes accessible to your service groups in addition to standard services.

On some earlier versions of the security gateway, this functionality was configured through the Generic Service Passer (GSP) Properties window. In this release, the same functionality is configured through the Network Protocols Properties window.

You can use the Network Protocols Properties window to configure generic services provided by hosts residing on either side of the security gateway.

**Note:** Custom or "generic" services include any service not supported by one of the Symantec application proxies.

By default, the Generic Service Passer handles all service requests transparently. These requests are proxied to their destinations as if the requester were directly connected to the remote destination machine. All connections are subject to gateway authorization rules.

Once defined, generic services selected from the list can be used in service groups in addition to the standard services supported by the security gateway. Like standard services (such as Telnet, FTP, and HTTP), custom generic services appear to external hosts attempting to access them as ports on the security gateway.

Protocols that are built in to the security gateway have their read-only property set to true and only limited changes, such as enabling and disabling, can be made.

User-created protocols have their read-only property set to false and all protocol properties can be changed.

## Configuring IP-based protocol properties

You can configure a GSP using IP as your protocol base. You would need this configuration if you have various clients external to the security gateway that want to connect to a PPTP server behind the security gateway. The security gateway does not include a PPTP proxy (which involves both GRE and TCP protocols). If you want various external entities to access the PPTP server, you will need to configure GSP to pass PPTP.

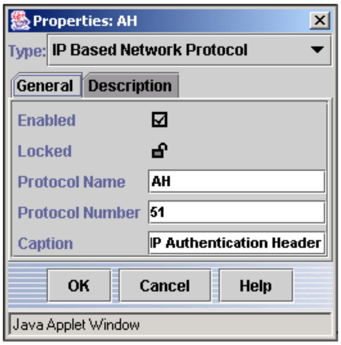
### To configure a IP-based protocol properties

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Advanced tab, in the left side navigation list, click **Network Protocols**.

3 Below the Network Protocols table, click **New Network Protocol > IP-Based Network Protocol**.

4 In the new row, right-click and select **Properties**.



Properties: AH

Type: IP Based Network Protocol

Enabled ☑

Locked

Protocol Name: AH

Protocol Number: 51

Caption: IP Authentication Header

5 On the General tab, to enable the protocol, check **Enable**.
This check box is enabled by default.

6 In the Protocol Name text box, type a name for the protocol.

7 In the Protocol Number text box, type a number for the protocol.
The default is 0.

8 To use the Generic Service Proxy to handle a protocol not supported by the system proxies, check **Use GSP.**
This check box is checked by default.

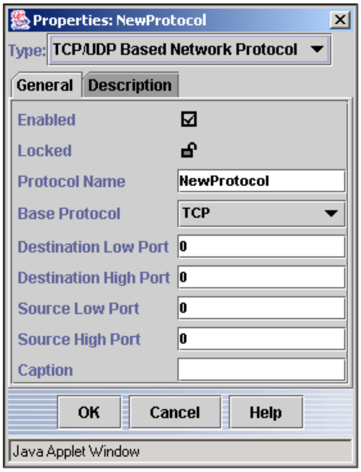
9. In the Caption text box, type a brief description of the protocol.
10. On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
11. Click **OK**.
12. In the Network Protocols window, click **Apply**.
13. On the Selection Menu, click **Activate**.
    The IP-based protocol is now configured for use.

## Configuring TCP/UDP-based protocols

By default, the GSP server application handles all TCP service requests transparently, provided the destination is a published entity. GSP proxies these requests to their destinations as if the requester was directly connected to the remote destination machine.

### To configure TCP/UDP-based protocol properties

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Advanced tab, click **Network Protocols**.
3. Below the Network Protocols table, click **New Network Protocol > TCP/UDP-Based Network Protocol**.
4. Click **Properties**.



Properties: NewProtocol

Type: TCP/UDP Based Network Protocol

| | |
|---|---|
| Enabled | ☑ |
| Locked | 🔓 |
| Protocol Name | NewProtocol |
| Base Protocol | TCP |
| Destination Low Port | 0 |
| Destination High Port | 0 |
| Source Low Port | 0 |
| Source High Port | 0 |
| Caption | |

5. On the General tab, to enable this protocol, check **Enable**.
   This check box is checked by default.

6 In the Protocol Name text box, type a name for the protocol.

7 In the Base Protocol Type drop-down list, select a base protocol.
The selections are TCP and UDP.

8 In the Destination Low Port text box, type the port number at the lower end of the range to use as the protocol’s destination.
Specifying zero here means any port. That is the default. To specify a single port, enter a low value here and leave the high port value at 0. To specify a port range, specify both a low port and a high port value.

9 In the Destination High Port text box, type the port number at the upper end of the range to be used as the protocol’s destination.
Specifying zero here means any port. That is the default.

10 In the Source Low Port text box, type the port number at the lower end of the range to be used as the protocol’s source.
Specifying no port here means any port. The default is port 1024.

11 In the Source High Port text box, type the port number at the upper end of the port range to be used as the protocol’s source.
Specifying no port here means any port. The default is port 65535.

12 To use the Generic Service Proxy to handle a protocol not supported by the system proxies, check **Use GSP.**
This check box is checked by default.

13 To use the native service, check **Enable Native Service**.
Management requests directed at a system behind the security gateway will come in on port 2456 by default. With this option enabled, the security gateway will change the destination port to 2457 before sending it up the stack. This lets the packet pass through without being captured as a management connection. When the new connection is created to the true destination, both the real destination address and port are substituted back and connection proceeds.

14 If you enabled native service, in the Native Service Port text box, type the port number to be used.

15 In the Caption text box, type a brief description of the protocol.

16 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

17 Click **OK**.

18 In the Network Protocols window, click **Apply**.

19 On the Selection Menu, click **Activate**.
The TCP/UDP-based protocol is now configured for use.

# Configuring ICMP-based protocols

Protocols used in filters or filter groups can be based on any supported transport protocol and can be associated with a range of destination ports. Like the commonly-used protocols, new protocols can be used to create filters or filter groups.

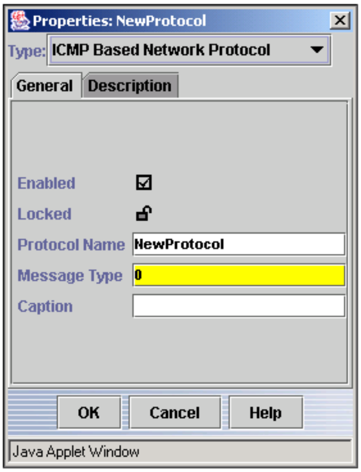
### To configure ICMP-based protocol properties

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Advanced tab, click **Network Protocols**.

3 Below the Network Protocols table, click **New Network Protocol > ICMP-Based Network Protocol**.

4 Click **Properties**.



Type: ICMP Based Network Protocol

Enabled ☑

Locked

Protocol Name: NewProtocol

Message Type: 0

Caption:

5 On the General tab, to enable the protocol, check **Enable**.
This check box is enabled by default.

6 In the Protocol Name text box, type a name for the protocol.

7 In the Message Type text box, fill in the information required based on the protocol base you have selected.

8 To use the Generic Service Proxy to handle a protocol not supported by the system proxies, check **Use GSP.**
This check box is checked by default.

9 In the Caption text box, type a brief description of the protocol.

10 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

11 Click **OK**.

12 In the Network Protocols window, click **Apply**.

13 On the Selection Menu, click **Activate**.
The protocol is now configured for use.

Chapter 8

# Controlling service access

This chapter includes the following topics:

- Configuring filters
- Defining time periods
- Specifying content filtering
- Configuring LiveUpdate

## Configuring filters

The security gateway provides packet filtering capabilities.

You can use filters to restrict the types of packets passing into or out of the host system over a given interface or secure tunnel, based on the direction of the transmission and the protocol being used.

You can use the Filters Properties window to create the following filtering mechanisms:

- Individual filters
- Aggregations of filters or filter groups

Each filter is designated as either Allow or Deny. In general, you use Allow filters and only add Deny filters to filter groups. This is because the purpose of Deny filters is to refine the packet traffic allowed through an interface or tunnel. You use a Deny filter to do this by using it in combination with an Allow filter designed to permit a broad range of protocols.

When applied to tunnels, filters can restrict the services available, providing finer-grained control of information distribution.

**Note:** Without filters, your tunnels and interfaces are wide open channels. But once a filter is applied, unless there is an explicit allow filter, no traffic gets through. This is because, by default, a filter denies all traffic. When you create an allow filter, only the traffic you specifically designate is allowed. Therefore, if you create a stand-alone deny filter that is not part of a group, it denies all traffic, including management traffic, not just the traffic you select to deny.

A filter consists of at least one instance of a protocol and direction, matched to a specific pair of network entities. All filters are characterized as A -> B and B -> A, where the letters A and B stand for the network entities.

The direction of the arrow specifies which entity can initiate the connection. For instance, A -> B HTTP means “entity A can initiate an HTTP connection to B.” After the connection is established, entity B may (as in the case of HTTP) need to send data back to the requesting entity. The filter in place allows this traffic.

## Creating an allow filter

The filters and filter groups you create specify an allow or a deny action and an ordered set of match criteria. The order of filter elements is important since the first match to any packet passing through the security gateway or the tunnel is the only one that applies.

For example, a filter template called securemail encompasses the following:

A -> B smtp, B -> A smtp

The filter template securefiles encompasses the following:

A -> B ftp, B -> A ftp

Applying the filter group secureservers, comprised of securemail and securefiles, to a tunnel is equivalent to applying all these filter elements as follows:

A -> B smtp

B -> A smtp

A -> B ftp

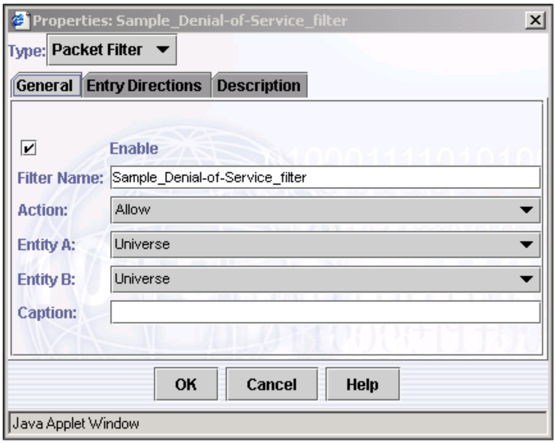
B -> A ftp

#### To configure a filter

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Filters tab, click **New Filter > Packet Filter**.

3 Click **Properties**.



Properties: Sample_Denial-of-Service_filter

Type: Packet Filter

☑ Enable

Filter Name: Sample_Denial-of-Service_filter

Action: Allow

Entity A: Universe

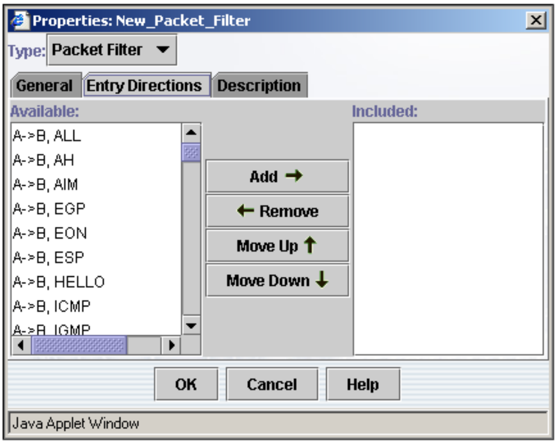
Entity B: Universe

Caption:

4 In the Properties window, on the General tab, do the following:

| | |
|---|---|
| Type | In this drop-down list, clickD **Packet Filter**. Changing the value in the Type drop-down list does not change the entry in the Filter Name text box. |
| Enable | To enable the packet filter, check **Enable**. This check box is checked by default. |
| Filter Name | Type a name for the filter. The name cannot contain spaces. |
| Action | Select **Allow** or **Deny**. The default is Allow. |
| Entity A | Select a network entity to serve as entity A for this filter. |
| Entity B | Select a network entity to serve as entity B for this filter. |
| Caption | Type a brief description of the filter. |

5 On the Entry Directions tab, select a protocol from the Available list and click **Add** to move it to the Included list.



6 To remove a protocol from the filter, highlight it in the Included list and click **Remove**.

7 To rearrange the order of protocols in the Included list, highlight an entry and click **Move Up** or **Move Down**.

8 On the Description tab, you can add a more detailed description of the filter than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 On the Filters tab, click **Apply**.

11 On the Selection Menu, click **Activate**.
The filter is now configured and can be specified in a rule.

## Creating a filter group

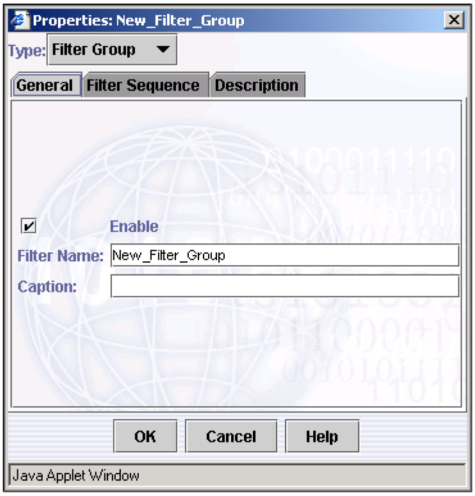
Once you have configured individual packet filters, you can put them together in filter groups to refine the filtering of traffic.

### To configure a filter group

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Filters tab, click **New Filter > Filter Group**.

3 Click **Properties**.



Properties: New_Filter_Group

Type: Filter Group

☑ Enable

Filter Name: New_Filter_Group

Caption:

4 In the Properties window, on the General tab, in the Type drop-down list, select **Filter Group**.

Changing the value in the Type drop-down list does not change the entry in the Filter Name text box.

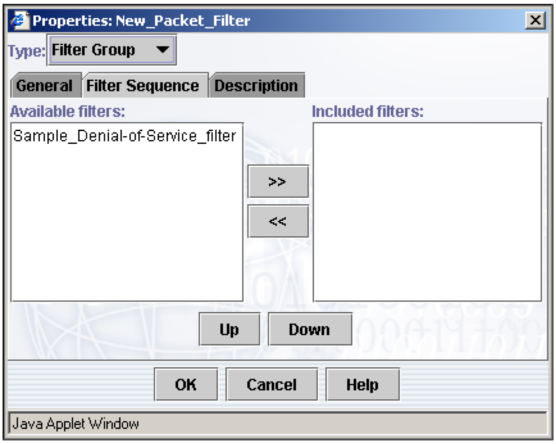
5 To enable the filter group, check **Enable**.

This check box is checked by default.

6 In the Filter Name text box, type a name for the filter group.

7 In the Caption text box, type a brief description of the filter group.

8 On the Filter Sequence tab, select the filters you want to put in the filter group in the Available filters list and then click the right-arrow >> button to move them to the Included filters list.



Available filters:
Sample_Denial-of-Service_filter

Included filters:

9 To rearrange the order of the filters in the sequence, highlight a filter in the Included filters list, and then click **Up** or **Down**.

10 To remove a filter from the filter group, highlight it in the Included filters list and click the left-arrow button to move it to the Available filters list.

11 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

12 Click **OK**.

13 On the Filters tab, click **Apply**.

14 On the Selection Menu, click **Activate**.
The filter group is now configured and can be specified in a rule.

# Defining time periods

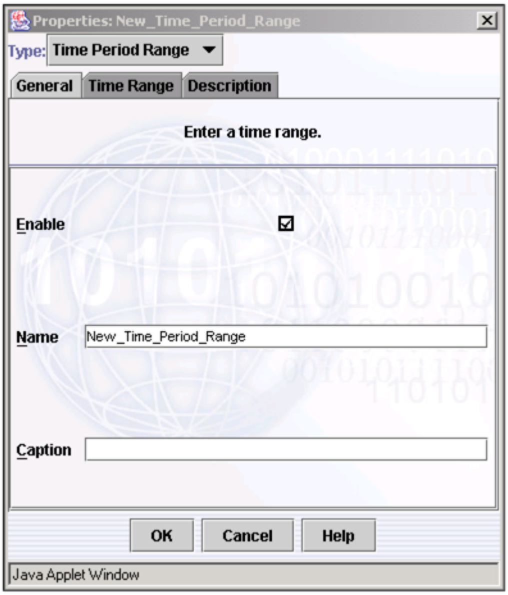
The time period window lets you restrict access to resources by time of day, day of week, and periods of time. You can create a window for any combination of these factors.

A time period range specifies a single window of time for access. It specifies a time and date combination, such as July 1, 2000-July 31, 2000 or Monday-Wednesday or 4 PM-6 PM. Templates can also mix days and times, such as 4 PM-6 PM during July 1, 2000-July 31, 2000 or 4 PM-6 PM during Monday-Wednesday.

A time period group is a group of time period ranges, joined together in an inclusive OR relationship.

### To configure a time period range

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Advanced tab, click **Time Periods**.
3. Below the table, click **New Time Period > Time Period Range**.
4. Click **Properties**.



Enter a time range.

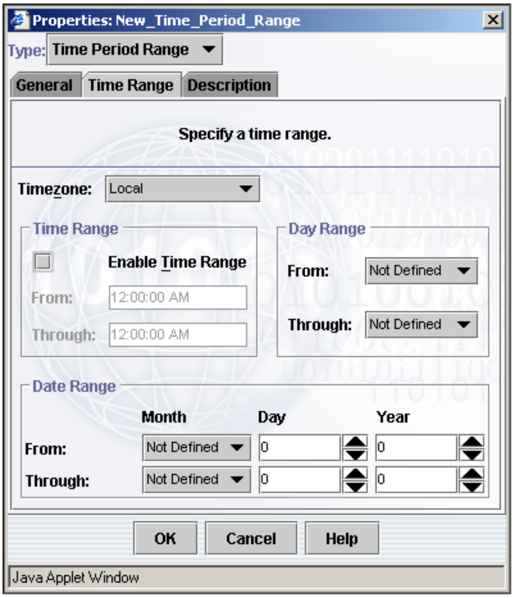
Enable ☑

Name New_Time_Period_Range

Caption

5. In the Properties window, on the General tab, to enable the new time range, check **Enable**.
   This check box is checked by default.
6. In the Name text box, type a name for the time range.
7. In the Caption text box, type a brief description of the time range.
8. On the Time Range tab, in the Timezone drop-down list, select the appropriate time zone for the new time range.

The default is the Local time zone.



Type: Time Period Range

Specify a time range.

Timezone: Local

Time Range

□ Enable Time Range

From: 12:00:00 AM

Through: 12:00:00 AM

Day Range

From: Not Defined

Through: Not Defined

Date Range

| | Month | Day | Year |
|---|---|---|---|
| From: | Not Defined | 0 | 0 |
| Through: | Not Defined | 0 | 0 |

9 In the Time Range box, to enable the time range check **Enable Time Range**.

10 In the From and Through text boxes, type the starting and ending times of the time range.

11 In the Day Range box, in the From and Through drop-down lists, select the starting and ending days of the time range.

12 In the Date Range box, in the From and Through drop-down lists, select the starting and ending months for the time range.

In the Day and Year text boxes, you can type in the starting and ending day and year or use the buttons to increment and decrement them.

13 On the Description tab, you can add a more detailed description of the time period than you typed on the General tab in the Caption text box.

14 Click **OK**.

15 In the Time Periods window, click **Apply**.

16 On the Selection Menu, click **Activate**.

The time period range is now configured and can be specified in a rule.

# Configuring a time period group

Once you have configured time period ranges for your security gateway, you can put them together in groups to further refine access periods.

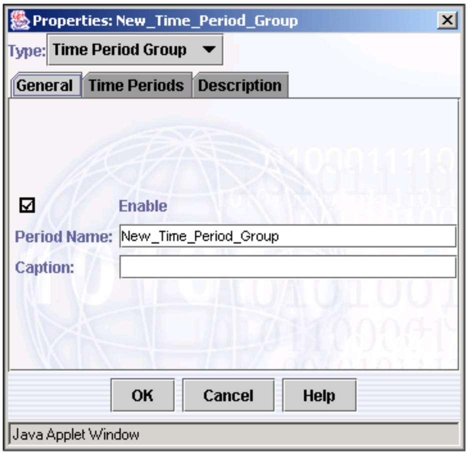
### To configure a time period group

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Advanced tab, click **Time Periods**.

3 Below the table, click **New Time Period > Time Period Group**.

4 Click **Properties**.



Properties: New_Time_Period_Group

Type: Time Period Group

☑ Enable

Period Name: New_Time_Period_Group

Caption:

5 On the General tab, to enable the time period group, check **Enable**.
This check box is checked by default.

6 In the Period Name text box, type a name for the time period group.

7 In the Caption text box, type a brief description of the time period group.

8 On the Time Periods tab, in the excluded list, select the time period range you want to include in the group and click the right-arrow >> button to move it to the included list.

9 On the Description tab, you can add a more detailed description of the time period group than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the Time Periods window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The time period group is now configured and can be specified in a rule.

# Specifying content filtering

Symantec security gateways let you filter the traffic passing through the security gateway in several different ways. You can filter content based on protocol type, subject matter, MIME types, URLs, and file name extensions.

## Ratings profiles

With the growth of the World Wide Web, much of the traffic on the Internet is HTTP. Symantec offers a variety of tools for managing Web access, both to your site and by your inside users to the Internet. Using the fine-grained management tools available to you, you can filter the types of HTTP access you wish to allow to and from designated entities within your network.

Certain security gateway proxies, for example, HTTP and FTP, allow for content filtering to prevent user access to materials your company considers objectionable. To facilitate content filtering, you can create rating profiles.

The security gateway enables you to restrict certain classes of URLs based on a ratings service. This feature is a URL site-blocking service built into the HTTP proxy. The service searches through a large precompiled list of blocked sites that contain topics that are rated.

By specifying a ratings profile in a service group, you can restrict the traffic based on the content for rules that use the service group.

**Note:** The security gateway content filtering subscription (purchased separately) includes a default list which can be used right out of the box. The list can be updated with information on new sites through LiveUpdate.

Using content filtering, you can create profiles of restricted topics in any combination from the following list of categories.

**Table 8-1** Ratings categories

| Rating | Content |
|---|---|
| Alcohol-Tobacco | Sites selling/ promoting, or advocating the use of alcoholic beverages (including beer, wine, and hard liquor) and tobacco products (including cigarettes, cigars, and pipe and chewing tobacco). |
| Drugs/Non-medical | Sites providing information on growth, distribution, and advocacy of drugs for nonmedical use (typically mood altering). Does not include alcohol or tobacco products. |

Table 8-1 Ratings categories (Continued)

| Rating | Content |
|---|---|
| E/Sports | Sites dedicated to professional and amateur sports and sporting events. |
| Gambling | Sites dedicated to promotion of or participation in wagering, gambling, casinos, or lotteries. |
| Gross Depictions | Sites containing pictures or descriptions of a graphic, but not sexual, nature. |
| Militant/Extremist/ Weapons | Sites that display, sell, or advocate the use of weapons, including guns, knives, and martial-arts weaponry. Also sites that advocate independent military actions and extremist movements. |
| Occult/New Age | Sites dedicated to occult and New Age topics including but not limited to astrology, crystals, fortune-telling, psychic powers, tarot cards, palm reading, numerology, UFOs, witchcraft, and Satanism. |
| Racism/Ethnic Impropriety | Sites that advocate intolerance or hatred of a person or group of people based on that person's or group's race or ethnic background. |
| Sex/Acts | Sites depicting or implying sexual acts not categorized under sexual education. Includes sites selling sexual or adult products. |
| Sex/Attire | Sites featuring pictures that include alluring or revealing attire, lingerie and swimsuit shopping, or supermodel photo collections but do not involve nudity. |
| SexEd | Sites providing information at the elementary level about puberty and reproduction.<br>Also medical discussions of sexually transmitted diseases which may contain medical pictures of a graphic nature. Includes sites providing information on pregnancy and family planning, including abortion and adoption issues. Also includes sites providing information on sexual assault, including support sites for victims of rape, child molestation, and sexual abuse. Includes sites providing information and instructions on the use of birth control devices. May include some explicit pictures or illustrations intended for instructional purposes only. May include slang names for reproductive organs or clinical discussions of reproduction.<br>Also sites dealing with topics in human sexuality, including sexual technique, sexual orientation, cross-dressing, transvestites, transgenders, multiple-partner relationships, and other related issues. |

**Table 8-1** Ratings categories (Continued)

| Rating | Content |
|---|---|
| Sex/Nudity | Sites featuring pictures of nude individuals that do not include or imply sexual acts. Includes sites featuring nudity that is artistic in nature or intended to be artistic, including photograph galleries, paintings that may be displayed in museums, and other readily identifiable art forms. |
| Violence/Profanity | Sites depicting or advocating violence, including sites promoting violent terrorist acts against others that do not fall under the Racism/Ethnic Impropriety category. |

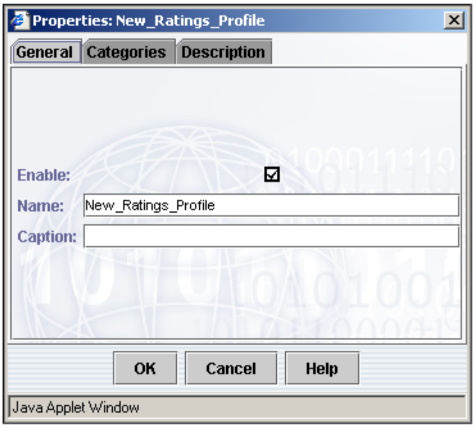
### To configure a ratings profile

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Content Filtering tab, click **Rating Profiles**.

3 Below the table, click **New Ratings Profile**.

4 Right-click in the new row and select **Properties**.



Enable: ☑

Name: New_Ratings_Profile

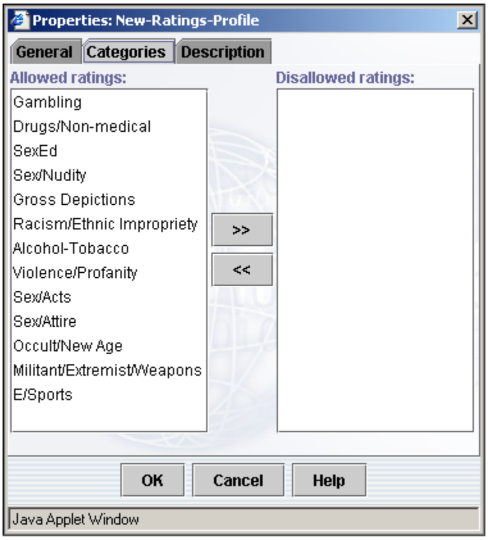
Caption:

5 On the General tab, to enable ratings profiles, check **Enable**.
This check box is enabled by default.

6 In the Name text box, type a name for the ratings profile.
This name will then become available in the Ratings Profile drop-down list in the Service Group Properties window.

7 In the Caption text box, type a brief description of the ratings profile.

You can add a more detailed description on the Description tab.



Allowed ratings:
Gambling
Drugs/Non-medical
SexEd
Sex/Nudity
Gross Depictions
Racism/Ethnic Impropriety
Alcohol-Tobacco
Violence/Profanity
Sex/Acts
Sex/Attire
Occult/New Age
Militant/Extremist/Weapons
E/Sports

Disallowed ratings:

8 On the Categories tab, select a category from the Allowed ratings list and click the right-arrow **>>** button to move it to the Disallowed ratings list.
Press and hold the **Shift** key while clicking to select all topics up to the one clicked simultaneously. Press and hold the **Ctrl** key while clicking to select multiple topics.

9 On the Description tab, you can add a more detailed description of the ratings profile than you typed on the General tab, in the Caption text box.

10 Click **OK**.

11 In the Ratings Profile window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The ratings profile is now configured and can be specified in a rule. To use the ratings profile in a rule, associate the ratings profile with a new service group and select that service group in your rule.

## Rating modifications

The security gateway lets you restrict certain classes of URLs based on a ratings service. This feature is a URL site-blocking service built into the HTTP proxy. The service searches through a large precompiled list of blocked sites that contain topics that are rated.

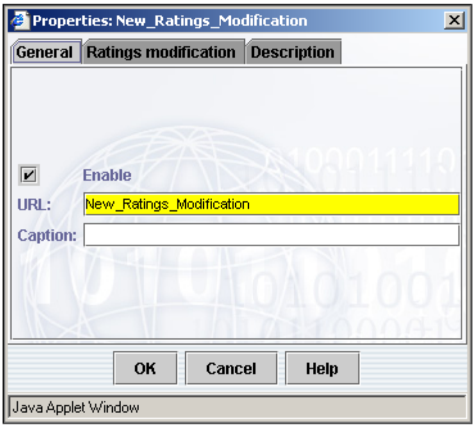
**Note:** You get a default list with the Symantec Enterprise Firewall, but you must have a subscription license for LiveUpdate to update this list. The list is updated frequently with information on new sites.

You can create profiles of restricted topics in any combination from a list of categories.

You can customize your ratings lists, changing the categories to which Web sites belong. This feature lets you adjust for special circumstances. For example, suppose your company prohibits sites rated as Gambling. However, your company does considerable business in the Las Vegas area and needs to refer to a site called www.lasvegas.com, which, for whatever reason, is rated as Gambling.

### To configure rating modifications

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Content Filtering tab, click **Rating Modifications**.
3. In the Rating Modifications window, click **New Ratings Modification**.
4. Right-click in the new row and select **Properties**.



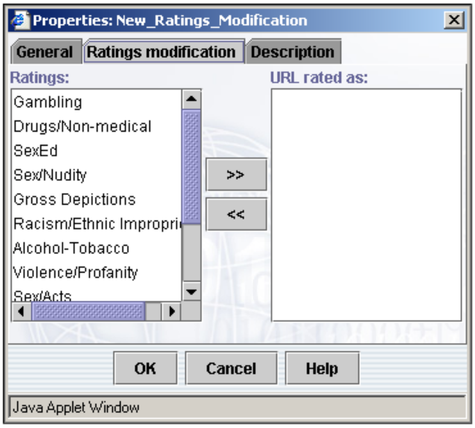
☑ Enable
URL: New_Ratings_Modification
Caption:

5 In the Properties window, on the General tab, to enable the rating modifications, check **Enable**.
This check box is checked by default.

6 In the URL text box, type the URL to which you want to provide access in the form http://www.sample.com.
The wildcard (*) is permitted only as the last character in an entry and permits any URL that matches the characters before it. For example, http://1.2.3.4/* or http://isp.com/*.

7 In the Caption text box, type a brief description of the ratings modifications.

8 On the Ratings modification tab, select a category from the Ratings list and click the right-arrow **>>** button to move it to the URL rated as list.
Press and hold the **Shift** key while clicking to select all topics up to the one clicked simultaneously. Press and hold the **Ctrl** key while clicking to select multiple topics.



9 On the Description tab, you can add a more detailed description of the ratings modification.

10 Click **OK**.

11 In the Rating Modifications window, click **Apply**.

12 On the Selection Menu, click **Activate**.
The rating modification is now configured for use.

# URL lists

HTTP document content restrictions let you control access to Web content according to file extension, URL, and by MIME type.

You can search for specific URLs among the extensive database of rated URLs to allow access only to certain URLs or to deny access to specific URLs.

For some situations, you may want to allow a very limited set of URLs through the security gateway. You may specify these URLs in this list, then only those URLs will be allowed. The Restrict by URLs option must be checked in the service group that is used by the rules that control Web traffic.

This allow URL service limitation is restrictive, since all URLs not listed in the allow table are denied by the security gateway. For that reason, Symantec recommends that this be used sparingly.

**Note:** You can set the misc.urlBlacklist advanced option to true to deny access to only the URLs included in the list. Refer to the Reference Guide for details.

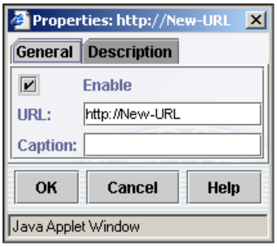
### To configure a URL list

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Content Filtering tab, click **URL List**.

3 In the URL List window, click **New URL**.

4 Click **Properties**.



☑ Enable

URL: http://New-URL

Caption:

5 In the Properties window, on the General tab, to enable the URL list, check **Enable**.
This check box is checked by default.

6 In the URL text box, type the URL you want to allow in the form:

```
http://www.sample.com.
```

The wildcard (*) is permitted only as the first or last character in an entry and permits any URL that matches the characters before or after it. For example:

```
http://*1.2.3.4/* or http://*isp.com/*.
```

The default for a new URL is http://New-URL. You must include http:// (or https://) as the first characters of the URL.

7 In the Caption text box, type a brief description of the URL list.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the URL List window, click **Apply**.

11 On the Selection Menu, click **Activate**.
The URL list is now configured for use.

## MIME types

You can restrict access to files based on Multipurpose Internet Mail Extension (MIME) types. Unlike service limitations that apply on a per-rule basis, MIME restrictions apply globally to all HTTP-based services. Use this feature to prevent downloading of certain usage formats (such as graphics files) or application types.

**Note:** You can set the misc.MIMEBlacklist advanced option to false to deny access to only the MIME types included in the list. Refer to the Reference Guide for details.

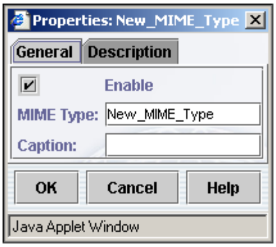
### To configure MIME type restrictions

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Content Filtering tab, select **MIME Types**.

3 In the MIME Types window, click **New MIME Type**.

4 Click **Properties**.



☑ Enable

MIME Type: New_MIME_Type

Caption:

5 In the Properties window, on the General tab, to enable the MIME type restriction, check **Enable**.
This check box is checked by default.

6 In the MIME Type text box, type the MIME type to restrict.
Add the disallowed MIME types as type/subtype, as shown in the following examples:

| | |
|---|---|
| image/gif | Do not allow graphics in GIF format. |
| image/jpeg | Do not allow graphics in JPEG format. |
| application/java | Do not pass Java class files. |

Any MIME type not explicitly restricted is permitted.

7 In the Caption text box, type a brief description of the MIME type restriction.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the MIME Types window, click **Apply**.

11 On the Selection Menu, click **Activate**.
The MIME type restriction is now configured for use.

# File extensions

You can create a list of extensions that will be allowed for HTTP traffic. For example, you may want to allow access to HTML and graphics files to control the types of data transferred through your Internet connection.

You can then create a rule that uses this list by adding the HTTP service group to the rule and configuring it to Restrict by File Extension on the Restrictions tab of the Properties window. This allows access only to files with the specific extensions that you have designated.

This service limitation is very restrictive, since all file extensions not included in the list are denied by the host system.

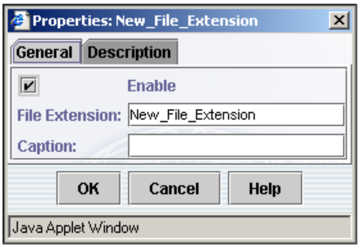
---

**Note:** You can set the misc.extensionBlacklist advanced option to true to deny access to only the file extensions included in the list. Refer to the Reference Guide for details.

---

### To configure file extension list

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Content Filtering tab, click **File Extensions**.
3. In the File Extensions window, click **New File Extension**.
4. Click **Properties**.



☑ Enable
File Extension: New_File_Extension
Caption:

5. In the Properties window, on the General tab, to enable the file extension restriction, check **Enable**.
   This check box is checked by default.
6. In the File Extension text box, type the file extension you are permitting.
   Type the file extensions one at a time in the following format:

   ```
   .gif
   ```
   Any extensions not listed are then disallowed.

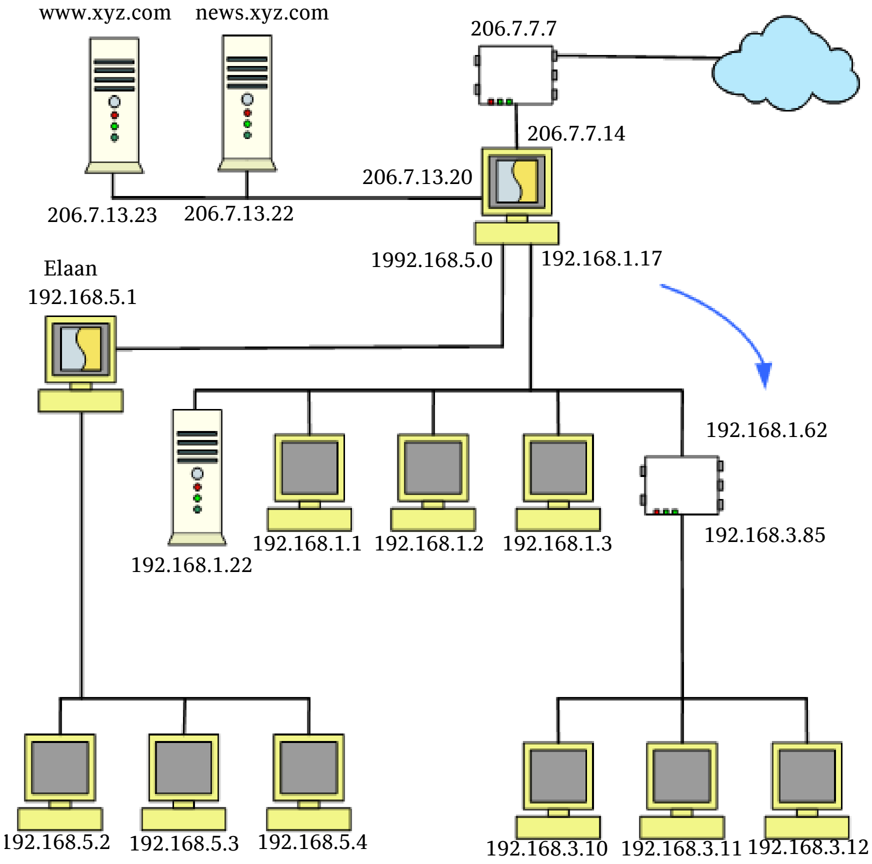
7. In the Caption text box, type a brief description of the file extension restriction.
8. On the Description tab, you can optionally add a more detailed description than you typed on the General tab in the Caption text box.
9. Click **OK**.
10. In the File Extensions window, click **Apply**.
11. On the Selection Menu, click **Activate**.
    The file extension list is now configured for use.

# Newsgroups

The security gateway offers several default newsgroup types.

The news server in the following figure is on a service network, 206.7.13.22. This news server is intended primarily for internal users, although some users might want to access it from home. Some newsgroups on this server are generally available.

**Figure 8-1** News server example



You can set up an internal news server for transparent access or as a redirected service. In this example, this server will be configured to do the following:

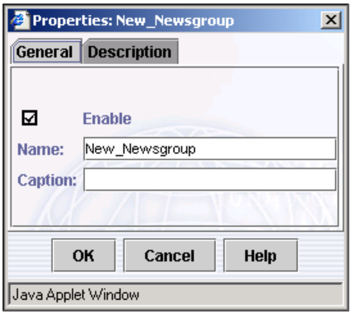
- Receive news feeds from an outside server, outside.bus.com.
- Allow access for all external users to a limited number of groups.

To enable the news server to receive news feeds from an outside source, first establish entities, as described in the Network entities section of this document.
You must configure service redirection for this entity to be accessed by outside users.

- Establish a host entity for news (called news in this example).
- Establish a host entity for the external server.

### To configure a newsgroup

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Content Filtering tab, click **Newsgroups**.
3. In the Newsgroups window, click **New Newsgroup**.
4. Click **Properties**.



Name: New_Newsgroup
Caption:

5. In the Properties window, on the General tab, to enable the newsgroup, check **Enable**.
   This check box is checked by default.
6. In the Name text box, type the name of the newsgroup.
7. In the Caption text box, type a brief description of the newsgroup.
8. On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
9. Click **OK**.
10. In the Newsgroups window, click **Apply**.
11. On the Selection Menu, click **Activate**.
    The newsgroup is now configured for use.

## Newsgroup profiles

To create a newsgroup intended for general access on a server with newsgroups that do not have general access, create a newsgroup profile for the allowed groups.

**Note:** To allow all newsgroups, you can create a wildcard profile. Simply create a newsgroup called *. The asterisk acts as a wildcard character, representing every newsgroup. You can then disallow specific newsgroups in the same profile. This way, by default, all newsgroups are allowed.

The name of a newsgroup is usually descriptive of its content. Symantec lets you restrict by newsgroup name. To do this, create a newsgroup profile.

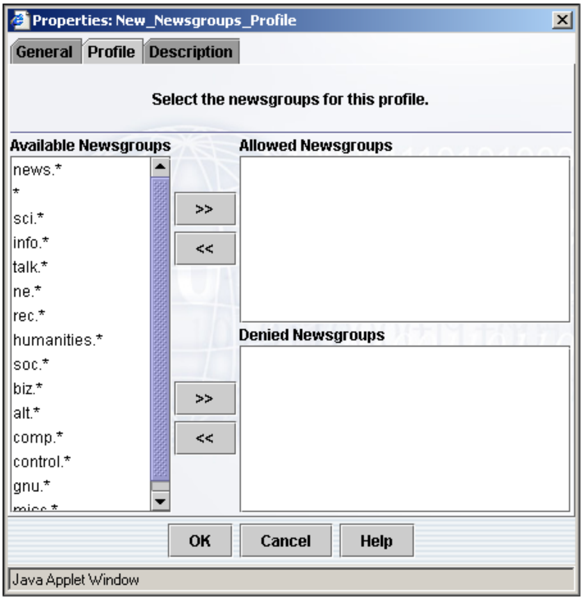
You can use an asterisk (*) as a wildcard character in any position of the newsgroup name. This makes it easier to restrict or permit access to different types of newsgroups. The following are acceptable:

alt.*
*.violence.*
alt.binaries.*.*

**To configure a newsgroup profile**

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Content Filtering tab, click **Newsgroup Profiles**.
3. Below the table, click **New Newsgroups Profile**.
4. Click **Properties**.
5. In the Properties window, on the General tab, in the Name text box, type a name for the newsgroup profile.

6 In the Caption text box, type a brief description of the newsgroup profile.



7 On the Profile tab, click on newsgroups in the Available Newsgroups list and click the right-arrow **>>** button to move them to the Allowed Newsgroups list.

To allow all newsgroups, you can create a wildcard profile. Simply move the asterisk (*) into the Allowed Newsgroups list. This acts as a wildcard character, representing every newsgroup. Then you can disallow only specific newsgroups in the same profile.

8 Use the Denied Newsgroups list to restrict portions of your allowed newsgroups (if necessary).

For example, you can allow the alt.* newsgroup, but then use the Denied Newsgroups list to restrict alt.binaries.* from the allowed list.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the Newsgroup Profiles window, click **Apply**.

12 On the Selection Menu, click **Activate**.

The newsgroup profile is now configured for use. Unless you are using a general wildcard profile (*), any newsgroup that does not appear in the

Allowed Newsgroups list is blocked in any service groups using the NNTP protocol with a newsgroup profile.

# Configuring LiveUpdate

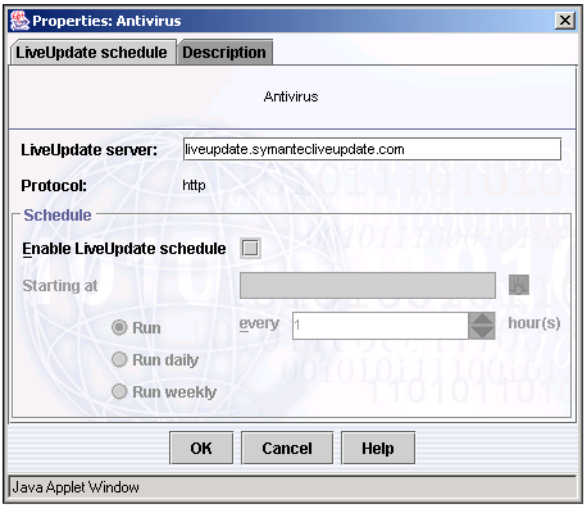
You can use the LiveUpdate window to view the status of various security gateway components. If licensed for their use, you can also configure the schedule for LiveUpdate operations for content filtering components.

### To configure LiveUpdate

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **LiveUpdate**.

3 In the LiveUpdate Configuration table, right-click on an entry, then select **Properties**.



Antivirus

LiveUpdate server: liveupdate.symantecliveupdate.com

Protocol: http

Schedule

Enable LiveUpdate schedule □

Starting at

● Run every 1 hour(s)

○ Run daily

○ Run weekly

4 In the Properties window, on the LiveUpdate schedule tab, in the Status group box, you can view the version of the current update and when it was last updated.

5 In the LiveUpdate server text box, type the URL for the LiveUpdate Server. The default is liveupdate.symantecliveupdate.com.

6 To run LiveUpdate, click **Run LiveUpdate now**.

7 In the Schedule group box, to enable the LiveUpdate schedule, check **Enable LiveUpdate schedule**.
This check box in unchecked by default.

8 In the Starting at list box, select a starting date and time for LiveUpdate.
The default is the current date and time.

9 To schedule LiveUpdate to run at a regular timed interval, click **Run** and, in the Every list box, select the time interval (in hours) at which to run LiveUpdate.
The default is one hour.

10 Click **Run daily** to schedule LiveUpdate to run once each day.

11 Click **Run weekly** to schedule LiveUpdate to run once each week.

12 Click **OK**.

13 Click **Apply**.

Chapter 9

# Controlling user access

This chapter includes the following topics:

- Configuring authentication methods
- Supported authentication types
- Authentication for dynamic users
- PassGo Defender™ authentication
- Entrust authentication
- GWPassword authentication
- LDAP authentication
- NT Domain authentication
- RADIUS authentication
- RSA SecurID® authentication
- Bellcore S/KEY™ authentication
- TACACs authentication
- Configuring the OOBA Daemon
- Configuring an authentication sequence

# Configuring authentication methods

This section explains how to set up authentication systems. Symantec supports several authentication types and you can apply them within any authorization rule.

You can also authenticate external users dynamically. This way, all possible users do not have to be defined on the system itself. An external authentication process can validate a user and then that user can gain access as part of a pre-defined group.

# Supported authentication types

The following authentication systems are supported:

- Third-party authentication systems:
  - PassGo Defender™
  - RSA SecurID™

  Each of these systems employs a single use password.

  These authentication systems can be used by either static users, who have user accounts on the security gateway, or by dynamic users, who have their user accounts on the authentication server.
- Static authentication systems:
  - Bellcore S/Key™
  - Gateway Password

  These systems let users authenticate with passwords that are assigned for their user accounts on the security gateway.
- Standard authentication protocols:
  - RADIUS
  - TACACs
  - LDAP

  These authentication types let you add authentication mechanisms based on servers that support them.
- NT Domain

  Security gateways that are part of an NT domain can query the Windows NT Domain controller using Windows NT account passwords for authentication.
- Out of Band Authentication capability, which lets you authenticate with proxies, such as GSP, that have not supported authentication on the security gateway in the past.

### To configure an authentication method

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click the type of authentication method you want to configure and select **Properties**.

4 In the Properties window, configure the authentication method as described in the next sections.
Some of the authentication methods are meant to be used in their default state and are not configurable. In these authentication methods, in the Properties window, on the General tab, the Read only field reads true.

## Authentication for dynamic users

Some authentication systems can be used by either static users, who have user accounts on the security gateway, or by dynamic users, who have their user accounts on the authentication server. Authenticating dynamic users requires the following steps.

### To authenticate dynamic users

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 Click **New Authentication Method > Authentication Sequence** and then click **Properties**.

4 On the General tab, in the Method Name text box, type dynamic.

5 On the Method Sequence tab, pick an authentication method from the Available methods list and click the right-arrow (>>) button to move it to the Included methods list.

6 Click **OK**, and then click **Apply**.

7 On the Groups tab, click **New User Group**, and then click **Properties**.

8 In the User Group Name, type <authentication-method>-none, where <authentication-method> is the method chosen in step 5.
For example, if you are using RADIUS authentication, type RADIUS-none.

9 Click **OK**, and then click **Apply**.

10 On the Selection Menu, click **Activate**.

### To create a rule for authentication

1 In the SESA Console, in the left pane, click **Policies**.

2 In the SGMI, in the left pane, click **Policy**.

3 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

4 On the Authentication tab, in the Authentication drop-down list, select dynamic.

5 In the included Groups text box, click **Add**.

6 In the dialog box, highlight RADIUS-none and click **OK**.

7 Click **OK**.

8 On the General tab, select the appropriate entries in the Arriving through, Source, Destination, Leaving through, and Service group drop-down lists.

9 Click **OK**, and then click **Apply**.

10 On the Selection Menu, click **Activate**.

# PassGo Defender™ authentication

Defender uses a handheld credit card-sized token generator, like a credit card-sized calculator, which produces a one-time password based on a seed value provided by the security gateway. It is also available as a software token.

For the security gateway to function as a Defender client:

- The Defender server must be configured by the Defender administrator.
- The security gateway system must be configured by the security gateway administrator.

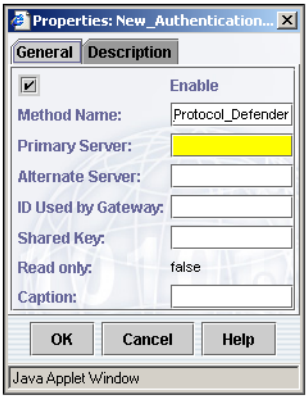
### To configure Defender authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 Click **New Authentication Method > Authentication Protocol Defender.**

4 Click **Properties**.



☑ Enable

Method Name: Protocol_Defender

Primary Server:

Alternate Server:

ID Used by Gateway:

Shared Key:

Read only: false

Caption:

5 In the Properties window, on the General tab, do the following:

Enable — To enable Defender authentication, check **Enable**. This check box is checked by default.

Method Name — Type a name for the Defender authentication. The default is New_Authentication_Protocol_Defender.

Primary Server — Type the IP address or fully-qualified domain name of the primary Defender server.

Alternate Server — Type the IP address or fully-qualified domain name of the alternate Defender server.

ID Used by Gateway — Type the name of the Defender Agent.

Shared Key — Type the Defender DES key. This key must be 16 characters in length. Pad your entry if necessary.

Read Only — In this text box, you can view the status of the Defender authentication.

Caption — Type a brief description of the Defender authentication.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Authentication Methods window, click **Apply**.

9 On the Selection Menu, click **Activate**.
Defender authentication is now configured for use.

# Entrust authentication

The security gateway supports the use of Entrust certificates to authenticate Symantec Client VPNs. The Entrust authentication method requires a configuration setup, both on the client and the security gateway. You must define an Entrust user at the security gateway to log on to the Entrust Server and an Entrust user for each Symantec Client VPN that needs to authenticate.

An Entrust user is defined by the following:

- An initialization file (*.ini)
- A client profile (*.epf)
- A client password

The client profile is a file containing the various Entrust certificates for the user. The client password is used to encrypt the private certificates within the profile. The initialization file, client profile, and client password are used by the user to login to the Entrust Server and use its API to encrypt, decrypt, and sign messages.

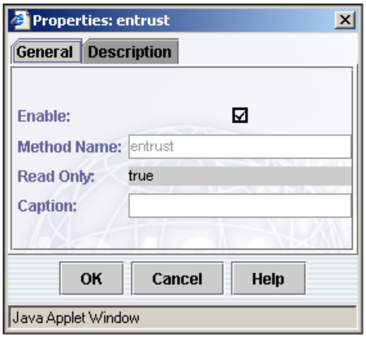
Configuration information for Entrust certificate authentication on the Symantec Client VPN can be found in the *Symantec Client VPN User's Guide*.

### To configure Entrust authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **entrust**, then select **Properties**.



Enable: ☑
Method Name: entrust
Read Only: true
Caption:

4 In the Properties window, on the General tab, to enable Entrust authentication, check **Enable**.
This check box is checked by default. The remainder of the fields on the General tab are read-only and cannot be changed.

5 On the Description tab, you can type a brief description of the authentication method.

6 Click **OK**.

7 In the Authentication Methods window, click **Apply**.

8 On the Selection Menu, click **Activate**.
Entrust authentication is now configured for use.

# GWPassword authentication

GWPassword, or gateway password, authentication is a multi-use password maintained within the security gateway database for each security gateway user. Users and their passwords are created and maintained by the administrator. Gateway password authentication is a weak form of authentication. Both the challenge and the response are passed as clear text.

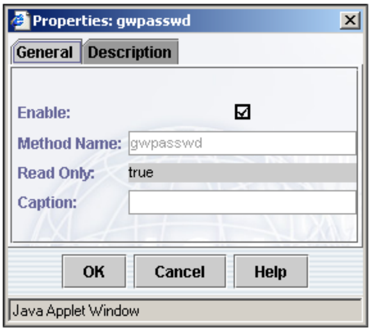
The information for gateway password authentication in stored in the gwpasswd file.

### To configure GWPassword authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **gwpasswd**, then select **Properties**.



Enable: ☑
Method Name: gwpasswd
Read Only: true
Caption:

4 In the Properties window, on the General tab, to enable gateway password authentication, check **Enable**.
This check box is checked by default. The remainder of the fields on the General tab are read-only and cannot be changed.

5 On the Description tab, you can type a brief description of the authentication method.

6 Click **OK**.

7 In the Authentication Methods window, click **Apply**.

8 On the Selection Menu, click **Activate**.
Gateway password authentication is now configured for use.

# LDAP authentication

The security gateway supports LDAP (Lightweight Directory Access Protocol) based authentication using an LDAP directory supporting LDAP version 3 protocol. LDAP, although not a strong authentication method, is flexible with respect to the directory schema and organization (the attributes and object classes used in the configuration).

Authentication is performed by binding to the user's Distinguished Name (DN) using their user ID (UID). First the DN is looked up using the UID and the UID attribute from the configuration. The password is then used to bind to the entry.

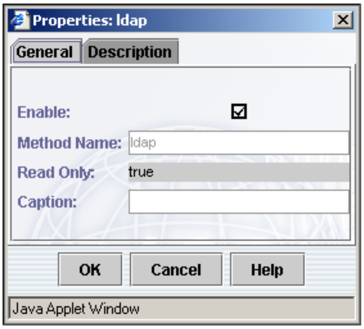
A group list is looked up by searching for groups where the user's DN (or other specified unique attribute) is a member specified in the configuration. If no primary group attribute is specified, the first one of the group list is returned as the primary group. Access is denied if multiple users exist with the same UID attribute, and the denial is logged.

### To configure LDAP authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **ldap**, then select **Properties**.



Enable: ☑

Method Name: ldap

Read Only: true

Caption:

4 In the Properties window, on the General tab, to enable LDAP authentication, check **Enable**.
This check box is checked by default. The remainder of the fields on the General tab are read-only and cannot be changed.

5 On the Description tab, you can type a brief description of the authentication method.

6 Click **OK**.

7 In the Authentication Methods window, click **Apply**.

8 On the Selection Menu, click **Activate**.
LDAP authentication is now configured for use.

## Configuring LDAP authentication service

The Lightweight Directory Access Protocol (LDAP) is a protocol for accessing online directory services. It runs directly over TCP, and can be used to access a standalone LDAP directory service or to access a directory service that is back-ended by X.500.

### To configure LDAP authentication service

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Services**.

3 In the Services table, click **LDAP Authentication**, and then click **Properties**.

4 In the Properties window, on the General tab, to enable LDAP authentication, check **Enable**.

5 In the Caption text box, type a brief description of LDAP authentication.

6 On the Connection tab, in the LDAP Server Address text box, type the fully-qualified DNS name or IP address of system on which the native LDAP server application is running.

7 In the LDAP Server Port text box, type the TCP port number assigned to the LDAP directory server.

The default is port 389. If SSL is enabled, the default port number is 636 for LDAP secure connections.

8 In the Alternate LDAP Server Address text box, type the fully-qualified DNS name or IP address of the system on which an alternate LDAP directory server is running.

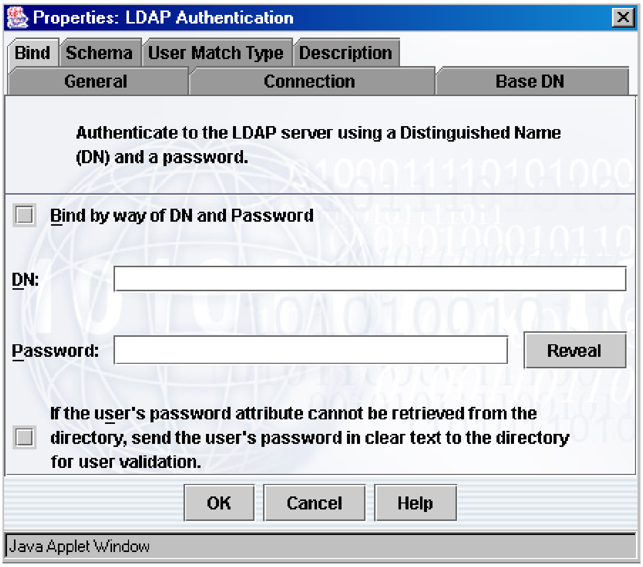
9 In the Alternate LDAP Server Port text box, type the TCP port number assigned to the alternate LDAP directory server.

The default is port 389. If SSL is enabled, the default port number is 636 for LDAP secure connections.

10 On the Base DN tab, in the Base DN text box, type the Distinguished Name where searches of the LDAP hierarchy will begin, typically the Organizational Distinguished Name, which is generally the top or root of the hierarchy. For example, o=arius.com.

11 On the Bind tab, to bind to the distinguished name and password, check **Bind by way of DN and Password**.

This check box is unchecked by default.



Authenticate to the LDAP server using a Distinguished Name (DN) and a password.

□ Bind by way of DN and Password

DN:

Password:

□ If the user's password attribute cannot be retrieved from the directory, send the user's password in clear text to the directory for user validation.

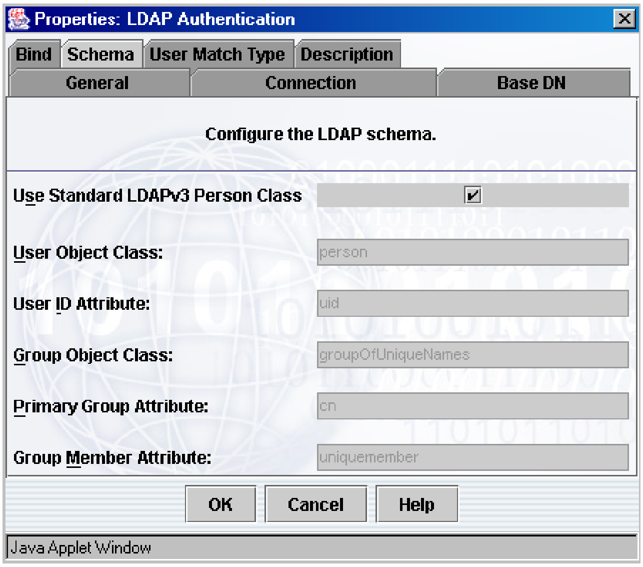
12 If you checked **Bind by way of DN and Password**, in the DN text box, type the security gateway system domain name to which to bind.
This secures the connection between the security gateway and the LDAP server.

13 In the Password text box, type the an LDAP password to secure the connection between the security gateway and the LDAP server.

14 If you want to send the user’s password in clear text when it cannot be retrieved and verified from the directory, check **Send the user’s password in clear text.**
This checkbox is unchecked by default.

15 On the Schema tab, to use the standard Netscape V3 person class, check **Use Standard LDAPv3 Person Class**.

The use of this class with LDAP is described in RFC2256, which is part of the description of LDAP v.3. This check box is checked by default.



Configure the LDAP schema.

Use Standard LDAPv3 Person Class ☑

User Object Class: person

User ID Attribute: uid

Group Object Class: groupOfUniqueNames

Primary Group Attribute: cn

Group Member Attribute: uniquemember

**16** In the User Object Class text box, type the name of the object class within the schema that defines user and user record attributes.

Within the standard LDAP v.3-compliant schema, the default object class used for this purpose is the person object class.

**17** In the User ID Attribute text box, type the attribute within an object class that will be used by the LDAP Ticket Agent to locate user records within the LDAP database.

Within the standard LDAP v.3-compliant schema, the default user ID attribute is the uid attribute (User Identification) defined by the person object class.

**18** In the Group Object Class text box, type the attribute within the schema whose attributes define user groups, group names, and group memberships.

Within the standard LDAP v.3-compliant schema, the object class used for this purpose is the GroupOfUniqueNames object class.

**19** In the Primary Group Attribute text box, type the primary group attribute.

During authorization checks, the value specified here is used by the LDAP Ticket Agent, in conjunction with the value specified in the Group Member Attribute text box and the Distinguished Name returned during the user's authentication check, to retrieve a list of groups to which the user belongs.

The group names retrieved are compared against the list of user groups allowed to access the information. In the standard LDAP v.3-compliant schema, the default group name attribute used for this purpose is the cn (common name) attribute, which is defined within the GroupOfUniqueNames object class.

20 In the Group Member Attribute text box, type the attribute the LDAP Ticket Agent uses to retrieve user group membership information from within the LDAP database.
In the Standard LDAP v.3-compliant schema, the default group member attribute used for this purpose is the unique member attribute defined within the GroupOfUniqueNames object class.

21 On the User Match Type tab, to base group membership queries on either the user record or a value specified in the User ID Attribute text box, check **User DN** or **User ID Attribute**.
Selecting User DN specifies the more traditional approach whereby group memberships are determined using the attributes found within LDAP group records. Using this approach, the DN returned during the authentication process is used in conjunction with the values specified in the Group Object Class, Primary Group Attribute, and Group Member Attribute text boxes to determine user group memberships.
Selecting User ID Attribute deviates from the traditional approach. Rather than using LDAP group records to determine user group memberships, pseudo user groups are created (implied) by specifying an attribute found within user records, such as the location attribute (l) or the organizational unit attribute (ou). With this approach, group records do not actually exist in the LDAP database, but rather users are implicitly grouped according to attribute values listed within their user records. By specifying a User ID Attribute, content is protected and users are granted access based upon such attributes as location (Boston) or organizational unit (accounting) as specified within their user record.
The default is User DN.

22 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

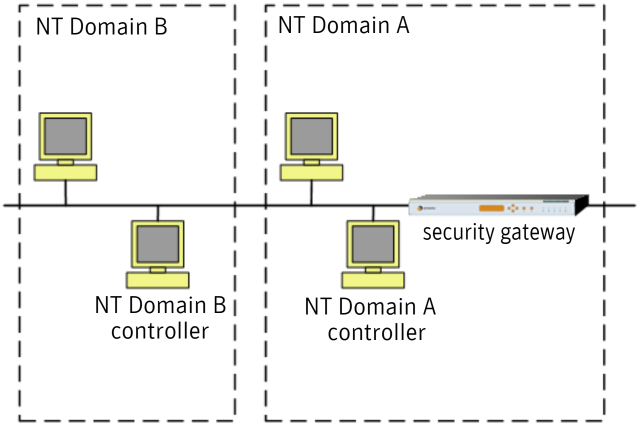
23 Click **OK**.

24 In the Services window, click **Apply**.

25 On the Selection Menu, click **Activate**.
LDAP authentication is now configured for use.

# NT Domain authentication

For rules using NT Domain authentication, the system queries the Windows NT Domain controller. Any user with an account on the same domain as the system can be authenticated. Users who have an account in another domain can also use this type of authentication, as long as there is a trust relationship between the domains.



In the figure above, users within NT Domain A can authenticate with NT Domain authentication. Users in NT Domain B can authenticate using NT Domain authentication only if Domain A trusts Domain B.

**Note:** Symantec recommends that Domain authentication not be used over an open network such as the Internet. Domain passwords are sent over the network in clear text.

The firewall must be a member of an NT Domain when you install it on the host system. If it has already been installed, you must uninstall it, make the computer a member of a domain, and reinstall. Your configuration files are preserved through the uninstall/reinstall process.

There are two ways (static or dynamic) to use NT Domain authentication, depending on your site requirements.

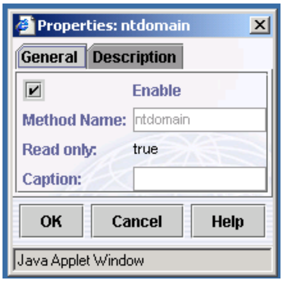
NT Domain authentication is supported for HTTP, FTP, NNTP, and Telnet connections.

### To configure NT Domain authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **ntdomain**, then select **Properties**.



☑ Enable

Method Name: ntdomain

Read only: true

Caption:

4 In the Properties window, on the General tab, to enable NT Domain authentication, click **Enable**.
This check box is checked by default. The remainder of the information on the General tab is read-only.

5 On the Description tab, you can type a description of the NT Domain authentication.

6 On the Selection Menu, click **Activate**.
NT Domain authentication is now configured for use.

## Static domain authentication

Users and user groups are defined on the security gateway to be used in authorization rules. The security gateway queries the Windows NT Domain Controller to validate the user’s password. The user must be a domain user for this method to work.

The NT Domain authentication template is one of several authentication methods available for users with accounts on the system.

## Dynamically authenticating external users

External users, also known as dynamic users, are users that are not defined on the security gateway; rather they are defined using other authentication mechanisms, such as PassGo Defender. This is especially useful for authenticating a large number of VPN users. For example, by configuring an association to an external authentication system, VPN users registered in the external system can be conveniently authenticated dynamically, without their explicit definition as security gateway users.

The procedure for setting up dynamic authentication is similar for most supported authentication types. However, the procedure for Microsoft NT Domain adds additional steps.

The setup for external authentication has two parts:

- Define an authentication sequence that includes the authentication mechanism to be used.
- Define a user group, where the name you create for the group follows special rules.

The authentication sequence and the user group are then applied to rules and/or tunnels.

**Note:** Although you create an authentication sequence to designate an external authentication mechanism, there is no need for the sequence to contain more than one mechanism.

On your NT Domain Controller (or the PDC of a trusted domain), create the global groups you wish to use and populate them with the Windows users. If you do not create groups, by default all users are placed in a group called Domain-users.

## Creating the user group

The purpose of a user group for dynamic authentication is to create a group name where the name itself encodes one or more properties of the external authentication mechanism. The security gateway runtime libraries decode the name as part of the authentication process.

When you create a dynamic authentication user group, there is no need to populate the group with users on the security gateway.

The specific format of the name will vary according to a given authentication mechanism, as described subsequently.

# RADIUS authentication

RADIUS is a UDP-based authentication method. The security gateway can support authentication using the RADIUS protocol. Only FTP, Telnet, and HTTP can be authenticated with RADIUS.

**Note:** For static RADIUS user authentication, users must have local accounts, defined in the User Properties window on the security gateway. For dynamic user authentication, users do not need to have accounts on the system.

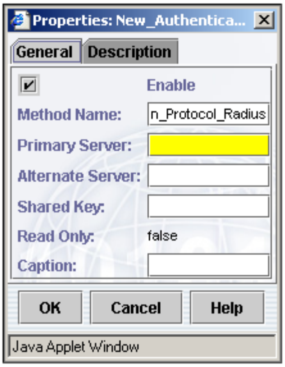
### To configure RADIUS authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 Click **New Authentication Method > Authentication Protocol RADIUS.**

4 Right-click the new entry in the Authentication Methods table, then select **Properties**.



Properties: New_Authentica...

☑ Enable

Method Name: n_Protocol_Radius

Primary Server:

Alternate Server:

Shared Key:

Read Only: false

Caption:

5 In the Properties window, on the General tab, do the following:

| | |
|---|---|
| Enable | To enable RADIUS authentication, check **Enable**. This check box is checked by default. |
| Method Name | Type the name of the RADIUS authentication. The default is New_Authentication_Protocol_RADIUS. The name cannot contain spaces. |
| Primary Server | Type the IP address or fully-qualified domain name of the RADIUS server. |
| Alternate Server | Type the IP address or fully-qualified domain name of the secondary RADIUS server. |
| Shared Key | Type the shared key to be used. |
| Read Only | This field indicates whether or not this authentication method can be modified. |
| Caption | Type a brief description of the RADIUS authentication method. |

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Authentication Methods window, click **Apply**.

9 On the Selection Menu, click **Activate**.
RADIUS authentication is now configured for use.

# RSA SecurID® authentication

RSA SecurID is a strong authentication method supported by Symantec. To use RSA SecurID authentication, you must install the RSA SecurID/Server software on a system in your private network (not the Symantec system); refer to the *Installation and Troubleshooting* guide by RSA.

You must install RSA SecurID/Client software on all of the machines, including the security gateway system, on which users will be authenticated using RSA SecurID.

This form of authentication is normally supported for FTP, NNTP, and Telnet. It is supported for HTTP when Reuse Password is enabled. When using authentication with HTTP, you must configure browser security proxies.

---

**Note:** For static RSA SecurID/Server user authentication, users must have accounts entered in the User Properties window on the security gateway. For dynamic user authentication, users do not need accounts on the security gateway.

---

Before you can use RSA SecurID/Server, you must do the following:

- Assign cards to users
- Create clients on the RSA SecurID/Server, including the security gateway and each cluster node if you are authenticating clustered systems
- Create groups, if applicable
- Activate cards and groups
- Select the IP address of the security gateway interface nearest your RSA SecurID server. This tells the system which server to look for.

## Configuring RSA SecurID software

To properly configure RSA SecurID software, you must install RSA SecurID server/client software, enable RSA SecurID authentication, and select the IP address of the security gateway interface nearest the RSA SecurID server.

### To install RSA SecurID software

1. Install the RSA SecurID/Server software on a host on the inside (protected) network, as described in the RSA SecurID/Server documentation.

   Be sure that the host name of the RSA SecurID/Server resolves to the correct IP address. Problems with name resolution will prevent RSA SecurID authentication from working.
2. On the RSA SecurID/Server, define the Symantec server as a RSA SecurID/Client. If your version of the RSA SecurID/Server wants to know what type of client the system is, select **communications server**.
3. Import tokens, assign users to tokens, and activate tokens for use on the Symantec system/SecurID/Client as described in the RSA SecurID documentation.
4. Set the time zone, date, and time on the RSA SecurID/Server. Set the time zone, date, and time on the security gateway. Make sure to sync the system time with the RSA SecurID server time or sync them both to a common source.

- If you are using a UNIX RSA SecurID/Server, copy the /var/ace/sdconf.rec file on the RSA SecurID/Server to /var/lib/sg directory on the Symantec system.
- If you have a Windows RSA SecurID/Server, follow client installation procedure in the RSA SecurID documentation. Copy the \ace\data\sdconf.rec file on the RSA SecurID/Server to the \raptor\firewall\sg directory.
- If you have a Linux or Solaris RSA SecurID/Server, copy the \ace\data\sdconf.rec file to: /var/lib/sg (Linux) or /usr/adm/sg (Solaris).

5 Optionally, perform the RSA SecurID/Client installation on the system with the clntchk applet. Ensure that the host name and address of the master RSA SecurID/Server are correct.

6 Test the RSA SecurID authentication mechanism with the RSA SecurID/Client applet (Start>Settings>Control Panel>SecurID>Client).

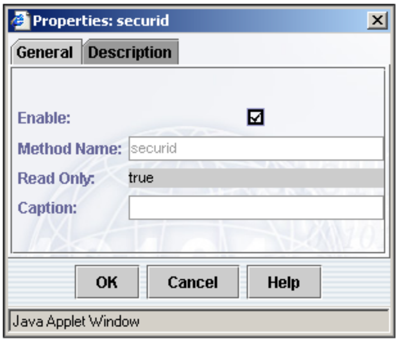
Testing authentication downloads the node secret, making this secret unavailable to the Symantec software. This must be corrected after testing by using the RSA SecurID Server administration applet to reset the node secret for the client. This is done by selecting edit client from the client drop-down menu, selecting the system, and then unchecking the sent node secret check box (leave the box checked for Solaris).

### To enable RSA securID authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **securid**, then select **Properties**.



Enable: ☑
Method Name: securid
Read Only: true
Caption:

4 In the Properties window, on the General tab, to enable SecurID authentication, check **Enable**.
This check box is checked by default. The remainder of the fields on the General tab are read-only and cannot be changed.

5 On the Description tab, you can type a brief description of the authentication method.

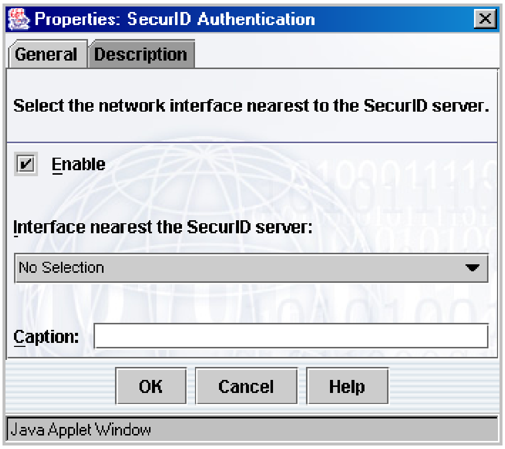
6 Click **OK**.

7 In the Authentication Methods window, click **Apply**.

### To select the IP address of the security gateway interface nearest the RSA SecurID server

1 In the right pane, on the Advanced tab, click **Services**.

2 In the Services table, click **SecurID Authentication**, and then click **Properties**.



Properties: SecurID Authentication

Select the network interface nearest to the SecurID server.

☑ Enable

Interface nearest the SecurID server: No Selection

Caption:

3 On the General tab, to enable RSA SecurID authentication, check **Enable**.
This check box is checked by default.

4 In the Interface nearest the SecurID Server drop-down list, select the security gateway interface closest to the RSA SecurID server.
The default is No Selection.

5 In the Caption text box, type a brief description of the RSA SecurID authentication.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Services window, click **Apply**.

9 On the Action menu, select **Activate Changes**.
RSA SecurID authentication is now configured for use.

# Bellcore S/KEY™ authentication

S/Key is stronger than simple password authentication. S/Key involves a challenge and response process which generates one-time passwords for authorized local/static users.

The S/Key software is integrated with the Symantec software. No additional installation procedures are required. This form of authentication is normally supported for FTP, NNTP, and Telnet. It is supported for HTTP when Reuse Password is enabled.

---

**Note:** When using authentication with HTTP, it is necessary to configure browser security proxies.

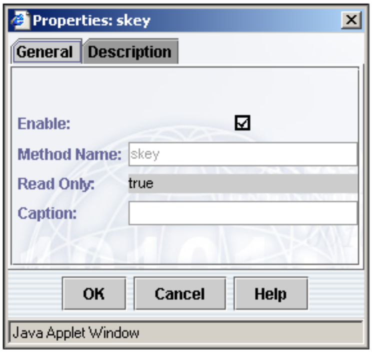
---

### To configure S/KEY authentication

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 In the Authentication Methods table, right-click **skey**, then select **Properties**.



Enable: ☑
Method Name: skey
Read Only: true
Caption:

4 In the Properties window, on the General tab, to enable S/Key authentication, check **Enable**.

5 In the Method Name text box, type the name for the authentication method.

6 In the Caption text box, type a brief description of the authentication method.

7 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

8 Click **OK**.

9 In the Authentication Methods window, click **Apply**.

10 On the Selection Menu, click Activate.
Bellcore S/KEY authentication is now configured for use.

# TACACs authentication

TACACs is a TCP-based authentication method. The security gateway can support authentication using the TACACs protocol for FTP, Telnet, HTTP, NNTP, and the Symantec Client VPN.

**Note:** For static TACACs user authentication, users must have accounts entered in the User Properties window on the security gateway. For dynamic user authentication, users do not need to have accounts on the system.

## To configure TACACs authentication

Configuring TACACs authentication consists of enabling the TACACs protocol, and identifying the primary (and optionally secondary) TACACs server by IP address. Finally, you must enable the TACACs daemon using the Advanced Location Settings Services tab.

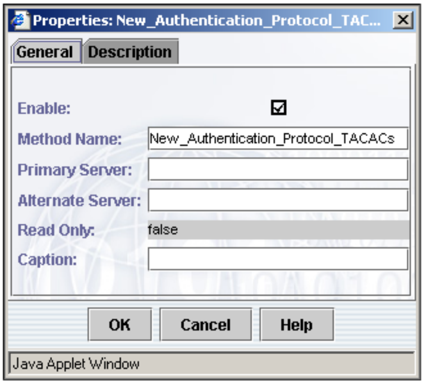
### To enable TACACs authentication and identify TACACs servers

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 Click **New Authentication Method > Authentication Protocol TACACs.**

4 Right-click the new entry in the Authentication Methods table, then select **Properties**.



Properties: New_Authentication_Protocol_TAC...

Enable: ☑

Method Name: New_Authentication_Protocol_TACACs

Primary Server:

Alternate Server:

Read Only: false

Caption:

5 In the Properties window, on the General tab, do the following:

Enable
To enable TACACs authentication, check **Enable**. This check box is checked by default.

Method Name
Type the name of the TACACs authentication method. The default is New_Authentication_Protocol_TACACs. The name cannot contain spaces.

Primary Server
Type the IP address or fully-qualified domain name of the primary TACACs server.

Alternate Server
Type the IP address or fully-qualified domain name of the secondary TACACs server.

Caption
Type a brief description of the TACACs authentication method.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Authentication Methods window, click **Apply**.

### To enable the TACACs Daemon

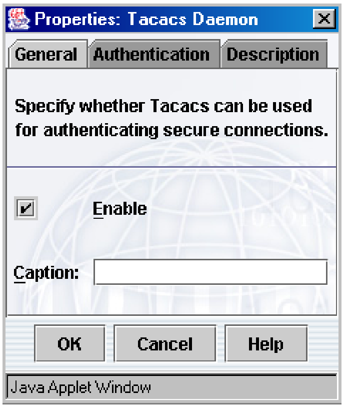
1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Services**.

3 In the Services table, click **Tacacs Daemon**, then click **Properties**.

4 On the General tab, to enable TACACs authentication, check **Enable**.
This check box is enabled by default.

5 In the Caption text box, type a brief description of TACACs authentication.



Specify whether Tacacs can be used for authenticating secure connections.

☑ Enable

Caption:

6 On the Authentication tab, in the Service Name text box, type the name passed to the TACACs server.
The service name is the name passed to the TACACs server during authentication. This defaults to firewall and should only be changed if the TACACs server does not support a firewall service.

7 In the Group Attribute Name text box, type the group attribute name.
The group attribute name is used by the TACACs service to determine the security gateway group membership of the individual being authenticated. This defaults to eaglegroup and should only be changed if the TACACs server does not support that attribute.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 In the Services window, click **Apply**.

11 On the Selection Menu, click **Activate**.
TACACs authentication is now configured for use.

# Configuring the OOBA Daemon

Out of Band Authentication (OOBA) is any authentication you can configure that is outside normal in-band communications for the proxy in question.

Table 9-1 contains a list of authentication methods supported (or conditionally supported in some cases) on the system if you are not using the OOBA authentication capability. To authenticate any proxies that are not listed in "Supported authentication types" on page 220, or to authenticate those listed in Table 9-1 unconditionally, you must use Out of Band Authentication using the OOBA daemon.

**Table 9-1** OOBA authentication

| | HTTP | FTP | NNTP | Telnet | Client VPN |
|---|---|---|---|---|---|
| Defender | yes [1] | yes | yes [1] | yes | yes |
| Entrust | | | | | yes |
| Gateway Password | yes | yes | yes | yes | yes |
| LDAP | yes | yes | yes | yes | yes |
| NT Domain | yes [2] | yes [2] | yes [2] | yes [2] | yes [2] |
| RADIUS | yes | yes | yes [3] | yes | yes |
| SecurID | yes | yes | yes | yes | yes |
| S/KEY | yes | yes | yes | yes | yes |
| TACACs | yes [3] | yes | yes [3] | yes | yes |

[1] Supported in Event Synchronous Mode only

[2] Supported on Windows systems only

[3] Supported only if not a challenge/response password mechanism

Out of Band Authentication is a one-size-fits-all authentication sequence for any unsupported authentication path for any proxy. For example, HTTP is supported with authentication, but under limited circumstances. Using OOBA, users can authenticate with HTTP through a challenge-response prompt that is not normally supported with HTTP. Other proxies, such as H.323, which have never supported authentication, can be authenticated to the system using OOBA.

On the user side, shipped with the security gateway, are HTML pages which prompt users for their user names and passwords when they try to access the system. Depending upon the authentication method they are using, along with OOBA and the proxy in use, the system continues to prompt them for data until the correct authentication method and password have been returned.

You can configure the system to authenticate users using OOBA through a check box in the Rules window. Create a rule as you normally would, but check the Use Out of Band Authentication check box. Then, select the users and/or user groups you are allowing to authenticate with OOBA.

See "Configuring rules" on page 137.

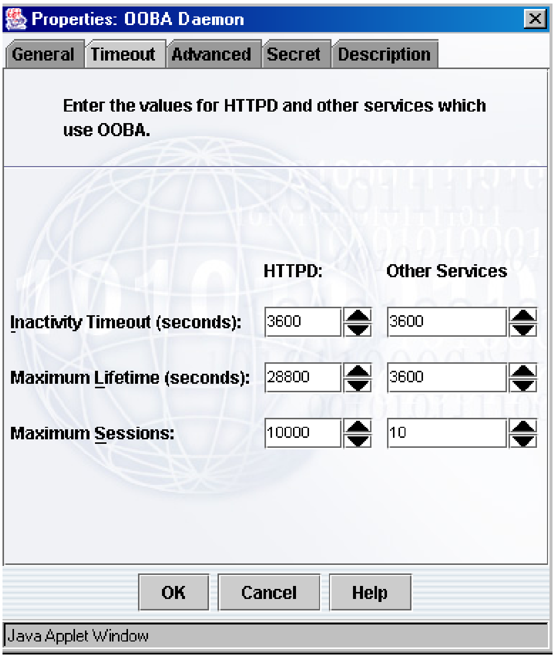
Before you can select the Use Out-of-band-Authentication check box on the Authentication tab of the Rules Properties window, you must configure some OOBA parameters.

**Note:** Defaults are configured for all OOBA settings except the authentication method. You may optionally set the rest of the OOBA parameters.

### To configure OOBA authentication

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Advanced tab, click **Services**.
3. In the Services table, click **OOBA Daemon**, and then click **Properties**.
4. On the General tab, to enable OOBA, check **Enable**.
5. This check box is unchecked by default.
6. In the Authentication method list box, select the method of authentication to be used with OOBA authentication.
7. You can create new authentication methods in the Authentication Methods window and they will appear in this list box. Inform connecting users of the authentication method you are selecting here.
   See "Configuring authentication methods" on page 220.

8 In the Caption text box, type a brief description of the OOBA authentication.



Enter the values for HTTPD and other services which use OOBA.

| | HTTPD: | Other Services |
|---|---|---|
| Inactivity Timeout (seconds): | 3600 | 3600 |
| Maximum Lifetime (seconds): | 28800 | 3600 |
| Maximum Sessions: | 10000 | 10 |

9 On the Timeout tab, in the Inactivity Timeout boxes, use the arrow buttons to select the timeout intervals in seconds.

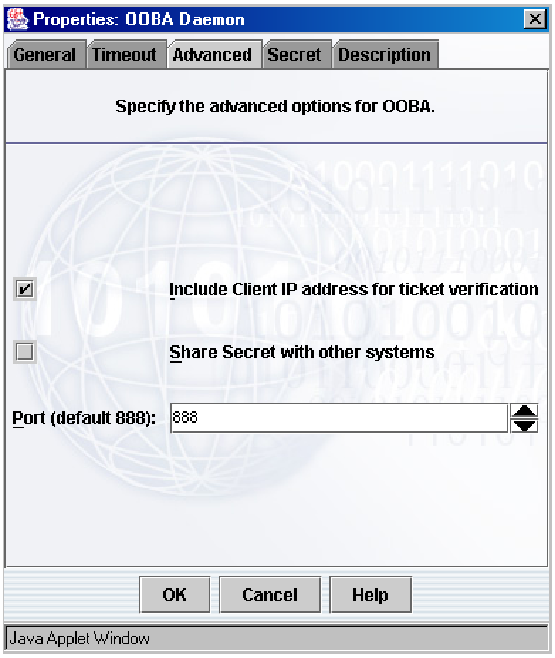
This value determines how long an idle out of band authentication connection can remain open. The default is 3600 seconds (one hour) for HTTP and other connections.

10 In the Maximum Lifetime boxes, use the arrow buttons to select the maximum session intervals in seconds.

This value is the lifetime limit for a created ticket before it is automatically disabled. If the user cannot successfully authenticate within this amount of time, the ticket expires. The default is 28800 seconds (eight hours) for HTTP connections and 3600 seconds (one hour) for other connections.

11 In the Maximum Sessions boxes, use the arrow buttons to select the maximum number of sessions.

This value is the maximum number of concurrent times authenticated users can use the service before they are automatically logged out. To use this service again, a user must log in and authenticate again. The default is 10000 for HTTP connections and 10 for other connections.



Specify the advanced options for OOBA.

☑ Include Client IP address for ticket verification

□ Share Secret with other systems

Port (default 888): 888

12 On the Advanced tab, to include the IP address in the ticket information as well as the user name, check **Include Client IP address for ticket verification**.

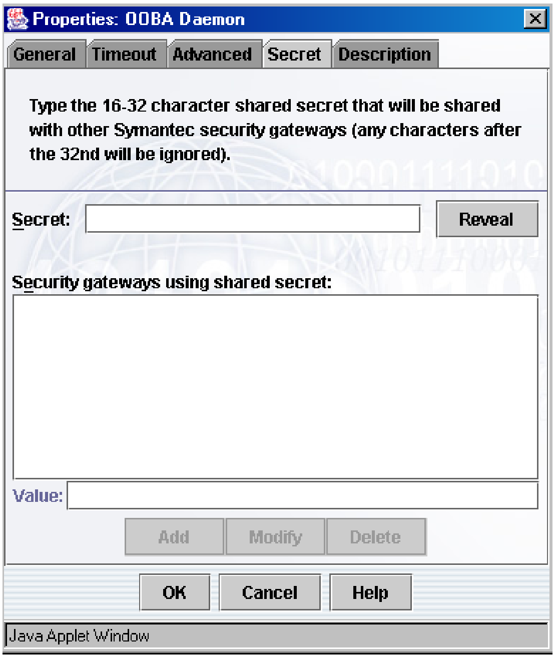
When this check box is checked, a user must connect to a server from the same IP address each time for the ticket to be valid. If you have a large number of users connecting to a server from a network that uses load balancing or NAT pools or any other form of dynamic addressing, you will not want to have this feature enabled. But if this is not the case, including the client IP address with the user name provides an extra level of security. This check box is checked by default.

13 To use a shared secret, check **Share Secret with other systems**.

This check box is unchecked by default. With this feature enabled, the same tickets are accepted by other gateway systems that also have this feature enabled. When sharing secrets, the inactivity timer and maximum use checks are not performed. Ticket expiration, validity, and client IP address (when used) checks are still performed.

14 In the Port box, use the arrow buttons to select the port number for authenticating connections requiring a log on and log off.

The default is port 888. Symantec suggests that you do not change this port number unless you have a direct conflict.



Type the 16-32 character shared secret that will be shared with other Symantec security gateways (any characters after the 32nd will be ignored).

Secret:

Security gateways using shared secret:

Value:

15 On the Secret tab, in the Secret text box, type the shared secret to be used by this and other security gateways.
You must enter the same secret information on all systems. This secret is used as the key which secures the HMAC-MD5 stored in the ticket. Shared secret keys must be between 16 and 32 characters.

16 To display the shared secret key in clear text, click **Reveal**.

17 In the value text box, type the host names or IP addresses of security gateway systems with which you want to share the shared secret and, to add them to the Servers that share the secret text box, click **Add**.

18 To edit or delete an entry from the Servers that share the secret text box, highlight the entry and click **Modify** or **Delete**.

19 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

20 Click **OK**.

21 In the Services window, click **Apply**.

22 On the Selection Menu, click **Activate**.
The OOBA daemon is now configured for use.

# Configuring an authentication sequence

You can use one or more authentication methods in any rule. To use more than one authentication method, create an authentication sequence and add it to the rule.

When the security gateway considers a rule for a connection attempt, it evaluates each of the authentication methods associated with that rule in the order of their assignment. For instance, if a rule specifies a sequence called XRAY that contains SecurID, S/Key, and a defined TACACs authentication method in this order, the security gateway attempts to authenticate the connection in the same order.

If there is a single authentication method and the user fails it, the connection is dropped. If there is more than one method and the user fails the first, the security gateway tries the next method in the sequence. The user must pass only one of the methods for the connection to be established.

### To configure an authentication sequence

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Authentication**.

3 On the Table menu, select **New Authentication Method > Authentication Sequence**.

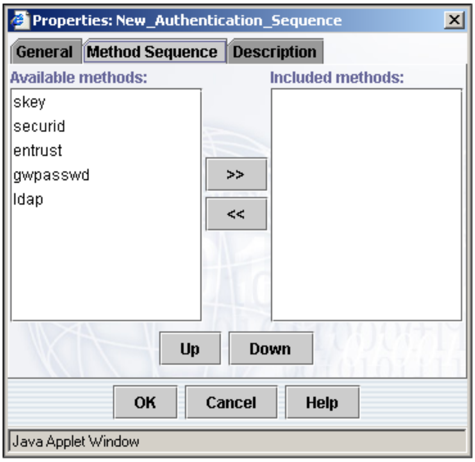
4 Right-click on the new table entry, then select **Properties**.

5 In the Properties window, on the General tab, to enable the authentication sequence, check **Enable**.

6 In the Method Name text box, type a name for the authentication sequence.

7 To cache the user’s password for future use, click **Reuse Password**.

8 In the Caption text box, type a brief description of the authentication sequence.



9 On the Method Sequence tab, you can configure the methods used in the sequence.
To add a method to the Included methods list, highlight it in the Available methods list and click the right-arrow >> button.

10 To re-order the methods within the sequence, highlight the method in the Included methods list and click **Up** or **Down**.

11 Click **OK**.

12 In the Authentication Methods window, click **Apply**.

13 On the Selection Menu, click **Activate**.
The authentication sequence is now configured for use.

---

**Note:** Before using a new or changed authentication sequence, you must reboot the security gateway.

---

# Configuring secure VPN connections

This chapter includes the following topics:

## About VPN tunnels

Virtual Private Network (VPN) technology lets you securely extend the boundaries of your internal network. Virtual Private Networks are used to allow either a single user or a remote network the ability to gain access to your protected resources. Connections can be encrypted to ensure privacy or authenticated to ensure integrity.

VPNs let you create or customize the policies used for VPN connections, and allow fine-grained control to grant access.

To make creating secure tunnels faster and easier, you can define standard VPN policies that you can then select for your secure tunnels. Rather than configuring the components present in these policies for every tunnel you create, you can configure general policies and later apply them to your tunnels.

VPN works by encapsulating an encrypted and/or authenticated IP packet in a second packet. Encrypting the original packet ensures the privacy of your communication over the public network. At its destination, the outer packet is stripped off and the original packet is decrypted and passed on to its ultimate destination.

# VPN policies

Before you set up your secure tunnels, to make their configuration faster and easier, you can create VPN policies that work on a global level. Rather than configuring the components present in these policies for every tunnel you create, you can configure general policies and then later apply them to your secure tunnels.

For example, you can create a general IPsec/IKE policy and a general IPsec/Static policy and apply these policies to each IKE or IPsec/Static secure tunnel you create. Support for IPsec means that you can create secure tunnels between the security gateway and other devices that support the IPsec standard.

You can select the following encapsulation protocols for your VPN policies:

- IPsec/Static
- IPsec/IKE

## Configuring a VPN policy for IPsec with IKE

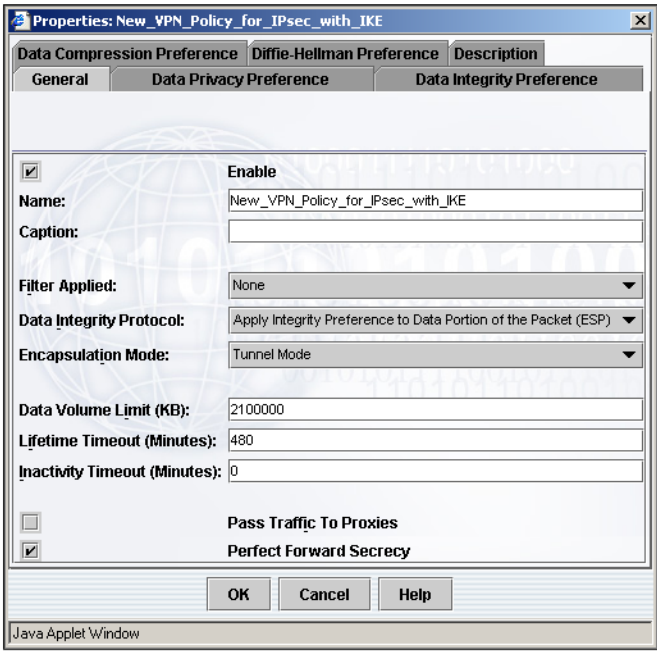
This section describes how to configure a VPN policy for IPsec with IKE.

### To configure a VPN policy for IPsec with IKE

1 In the SESA Console, in the left pane, click **Policy**.

2 In the right pane, on the VPN Policies tab, click **New VPN Policy** > **VPN Policy for IPsec with IKE**.

3 Click **Properties**.


Properties: New_VPN_Policy_for_IPsec_with_IKE
Data Compression Preference
Diffie-Hellman Preference
Description
General
Data Privacy Preference
Data Integrity Preference
OK
Cancel
Help
Java Applet Window

☑ Enable

Name: New_VPN_Policy_for_IPsec_with_IKE

Caption:

Filter Applied: None

Data Integrity Protocol: Apply Integrity Preference to Data Portion of the Packet (ESP)

Encapsulation Mode: Tunnel Mode

Data Volume Limit (KB): 2100000

Lifetime Timeout (Minutes): 480

Inactivity Timeout (Minutes): 0

□ Pass Traffic To Proxies

☑ Perfect Forward Secrecy

4 In the Properties window, on the General tab, do the following:

Enable

To enable the VPN policy, check **Enable**. This check box is checked by default.

Name

Type a name for the VPN policy.

Caption

Type a brief description of the VPN policy.

Filter Applied

In the drop-down menu, select whether you want a filter applied.

The options are Sample_Denial_of_Service_filter or None or any filter you have previously configured. The default is None.

Data Integrity Protocol

In the Data Integrity Protocol drop-down menu, select one of the following data integrity protocols.

- If you want to apply the algorithm to the data portion of the packet, select **Apply Integrity Preference to Data Portion of the Packet (ESP)**.
  This option provides integrity, authentication, and confidentiality to the packet. It works between hosts, between hosts and security gateways, and between security gateways ensuring that data has not been modified in transit. If you do not want to use this ESP default, you can select the AH option. Note that if you select the AH option along with a Data Privacy Algorithm, ESP is applied to the packet as well as AH.
- If you want to apply the algorithm to the entity packet, select **Apply Integrity Preference to Entity Packet (AH)**.
  In this option, the authentication header (AH) holds authentication information for its IP packets. It accomplishes this by computing a cryptographic function for the packets using a secret authentication key. If you select this option, but you’ve also elected to use a Data Privacy Algorithm (3DES, DES, or AES), ESP is applied to the packet as well as AH.

Encapsulation Mode

In the Encapsulation Mode drop-down menu, select either **Tunnel Mode** or **Transport Mode**.

You should only select transport mode when both tunnel endpoints are the same as their gateway addresses. In that case, using transport mode saves bandwidth. The default is Tunnel Mode.

Data Volume Limit (KB)

Type the maximum number of kilobytes allowed through the tunnel before it is rekeyed.

The default is 2100000 KB. The maximum acceptable value is 4200000. The minimum acceptable value is 1 KB.

Lifetime Timeout (Minutes)

Type the number of minutes that a tunnel is allowed to exist before it is rekeyed.

The default is 480 minutes (eight hours). The maximum acceptable value is 2,147,483,647.

Inactivity Timeout (Minutes)

Type the number of minutes a tunnel can remain inactive (no data passing through it) before it is re-keyed.

The default is 0 (no timeout value). The maximum acceptable value is 2,147,483,647.

Pass Traffic To Proxies

If you want to proxy tunnel traffic, check **Pass Traffic To Proxies**.

Enabling this check box sends the data packet up the protocol stack for authorization. The packets are then subject to all the address transforms and rule checking performed by the proxies. This check box is unchecked by default.

Perfect Forward Secrecy

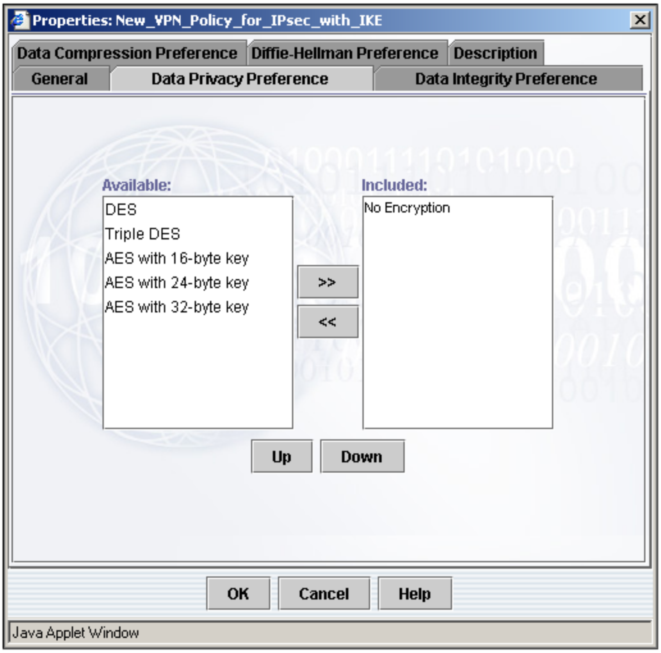
If you want perfect forward secrecy enabled, check **Perfect Forward Secrecy**.

Perfect Forward Secrecy lets administrators set up parameters for generating keys and prevents attackers from guessing successive keys.

If Perfect Forward Secrecy is enabled, you must also specify a Diffie-Hellman preference. Diffie-Hellman is the standard IKE method of establishing shared secret. Group 1 and 2 are the Diffie-Hellman group numbers available for establishing these IKE session keys. Group 1 is 768 bits long and group 2 is 1024 bits long. Using group 2 is more secure but it also uses more CPU power. Using a combination of groups, 1 then 2 or 2 then 1, indicates that first one group is tried, if that is unsuccessful, the next group is tried.

5. On the Data Privacy Preference tab, select a data privacy preference from the Available list and click the right-arrow >> button to move it to the Included list. The options are:
   - DES
   - Triple DES
   - AES with 16-byte key
   - AES with 24-byte key
   - AES with 32-byte key
   - No Encryption

   An IPsec policy can include more than one data privacy preference. The one that is used is negotiated by the originator of the connection. If the security gateway is the originator, the first one in this list is requested for connection.



Properties: New_VPN_Policy_for_IPsec_with_IKE

Available:

DES
Triple DES
AES with 16-byte key
AES with 24-byte key
AES with 32-byte key

Included:

No Encryption

6 To remove a preference, highlight it in the Included list and click the left-arrow << button.

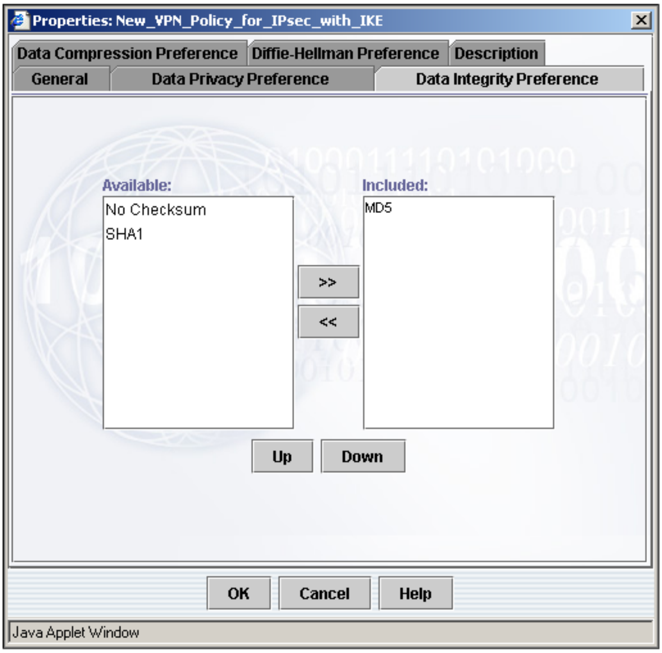
7 On the Data Integrity Preference tab, select a data integrity preference from the Available list and click the right-arrow >> button to move it to the Included list.

This dictates the type of authentication header that will be prepended to packets sent through the tunnel. Supported types are:

- SHA1 (slower but more secure than MD5)
- MD5 (faster but less secure than SHA1)
- No Checksum (specifies no authentication checksum)

The combination Data Integrity Preference = No Checksum and Data Privacy Preference = No Encryption is not permitted. If you select a Data Integrity

Preference of No Checksum, you are forced to select a Data Privacy Preference other than No Encryption.


Properties: New_VPN_Policy_for_IPsec_with_IKE
Data Compression Preference
Diffie-Hellman Preference
Description
General
Data Privacy Preference
Data Integrity Preference
>>
<<
Up
Down
OK
Cancel
Help
Java Applet Window

Available:
No Checksum
SHA1

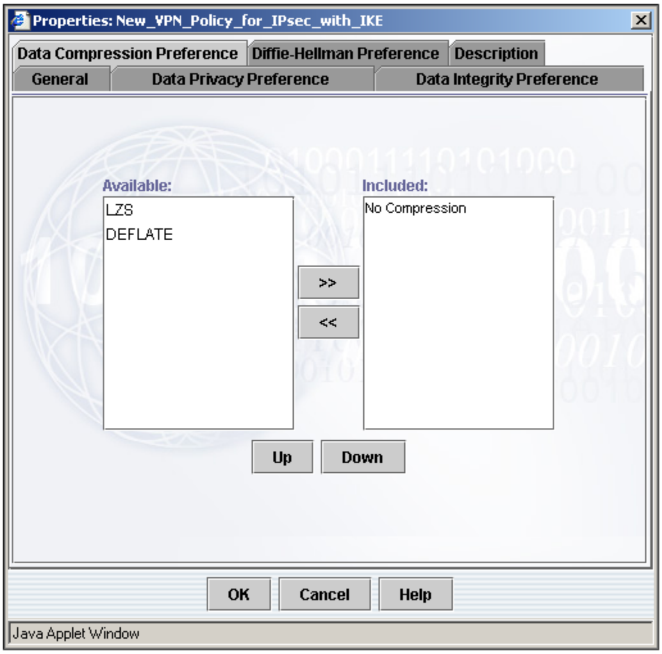
Included:
MD5

8 To remove a preference, highlight it in the Included list and click the left-arrow << button.

9 On the Data Compression Preference tab, select a data compression preference from the Available list and click the right-arrow >> button to move it to the Included list.

LZS compresses data by searching for redundant strings and replacing them with special tokens that are shorter than the original string. LZS then creates tables of these strings and replacement tokens which consist of pointers to the previous data streams. LZS uses these pointers to remove redundant strings from the new data streams.

DEFLATE uses a lossless compressed format that compresses data using a combination of the LZ77 algorithm and Huffman coding. Note that LZS requires more CPU cycles to perform compression.


Properties: New_VPN_Policy_for_IPsec_with_IKE
Data Compression Preference
Diffie-Hellman Preference
Description
General
Data Privacy Preference
Data Integrity Preference
>>
<<
Up
Down
OK
Cancel
Help
Java Applet Window

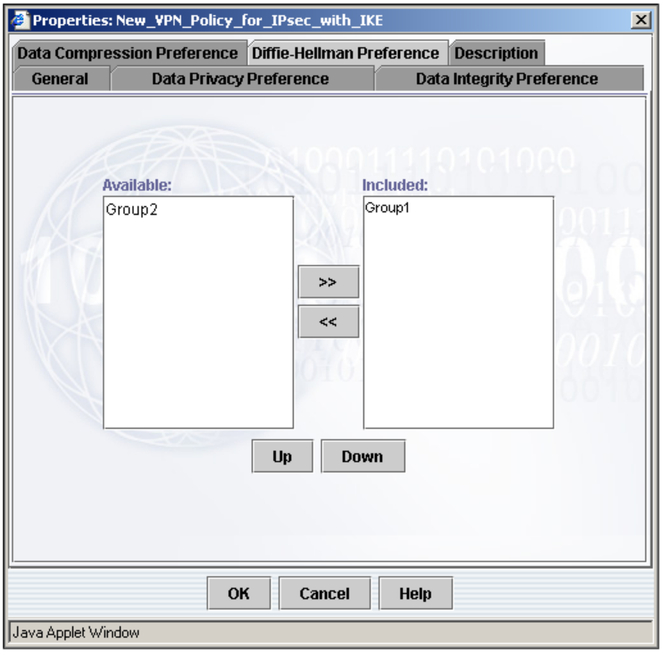
Available:
LZS
DEFLATE

Included:
No Compression

10 To remove a preference, highlight it in the Included list and click the left-arrow << button.

11 On the Diffie-Hellman Preference tab, select a group from the Available list and click the right-arrow >> button to move it to the Included list.

Diffie-Hellman is the standard IKE method of establishing shared secrets. Group 1 and Group 2 are the Diffie-Hellman group numbers available for establishing these IKE session keys. Group 1 is 768 bits long and Group 2 is 1024 bits long. Using Group 2 is more secure but it also uses more CPU power. Using a combination of groups, 1 then 2 or 2 then 1, indicates that first one group is tried, if that is unsuccessful, the next group is tried.



Properties: New_VPN_Policy_for_IPsec_with_IKE
Data Compression Preference
Diffie-Hellman Preference
Description
General
Data Privacy Preference
Data Integrity Preference
Available:
Group2
Included:
Group1
>>
<<
Up
Down
OK
Cancel
Help
Java Applet Window

12 To remove a group, highlight it in the Included list and click the left-arrow << button.

13 Click **OK**.

14 In the VPN Policies window, click **Apply**.

15 On the Selection Menu, click **Activate**.

# Configuring a VPN policy for IPsec with static key

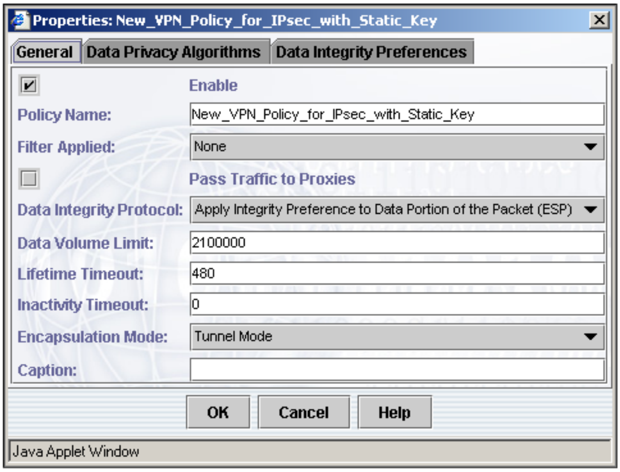
This section describes how to configure a VPN policy for IPsec with static key.

### To configure a VPN policy for IPsec with static key

1 In the SESA Console, in the left pane, click **Policy**.

2 In the right pane, on the VPN Policies tab, click **New VPN Policy > VPN Policy for IPsec with Static Key**.

3 Click **Properties**.


Properties: New_VPN_Policy_for_IPsec_with_Static_Key
General
Data Privacy Algorithms
Data Integrity Preferences
OK
Cancel
Help
Java Applet Window

☑ Enable

Policy Name: New_VPN_Policy_for_IPsec_with_Static_Key

Filter Applied: None

□ Pass Traffic to Proxies

Data Integrity Protocol: Apply Integrity Preference to Data Portion of the Packet (ESP)

Data Volume Limit: 2100000

Lifetime Timeout: 480

Inactivity Timeout: 0

Encapsulation Mode: Tunnel Mode

Caption:

4 In the Properties window, on the General tab, do the following:

Enable

To enable the VPN policy, check **Enable**. This check box is checked by default.

Policy Name

Type a name for the VPN policy. The name cannot contain any spaces.

Filter Applied

If you want to apply a filter to the VPN policy, select it from this drop-down list.

Pass Traffic to Proxies

If you want to proxy tunnel traffic, check **Pass Traffic To Proxies**. Enabling this check box sends the data packet up the protocol stack for authorization. The packets are then subject to all the address transforms performed by the proxies. This check box is unchecked by default.

Data Integrity Protocol

In the Data Integrity Protocol drop-down menu, select one of the following data integrity protocols.

- If you want to apply the preference to the data portion of the packet, select **Apply Integrity Preference to Data Portion of the Packet (ESP)**.
  This option provides integrity, authentication, and confidentiality to the packet. It works between hosts, between hosts and security gateways, and between security gateways ensuring that data has not been modified in transit. If you do not want to use this ESP default, you can select the AH option.
  If you select the AH option along with a Data Privacy Algorithm, ESP is applied to the packet as well as AH.
- If you want to apply the preference to the entity packet, select **Apply Integrity Preference to Entity Packet (AH)**.
  In this option, the authentication header (AH) holds authentication information for its IP packets. It accomplishes this by computing a cryptographic function for the packets using a secret authentication key.
  If you select this option, but you've also elected to use a Data Privacy Algorithm (3DES, DES, or AES), ESP is applied to the packet as well as AH.

Data Volume Limit

Type the maximum number of kilobytes allowed through the tunnel before it is rekeyed.

The default is 2100000 KB. The maximum acceptable value is 4200000 KB. The minimum acceptable value is 1 KB.

Lifetime Timeout

Type the number of minutes that a tunnel is allowed to exist before it is rekeyed.

The default is 480 minutes (eight hours). The maximum acceptable value is 2,147,483,647 minutes.

Inactivity Timeout

Type the number of minutes a tunnel can remain inactive (no data passing through it) before it is rekeyed.

The default is 0 (no timeout value). The maximum acceptable value is 2,147,483,647 minutes.

Encapsulation Mode

In the this drop-down menu, select either **Tunnel Mode** or **Transport Mode**. You should only select transport mode when both tunnel endpoints are the same as their gateway addresses. In that case, using transport mode saves bandwidth. The default is Tunnel Mode.

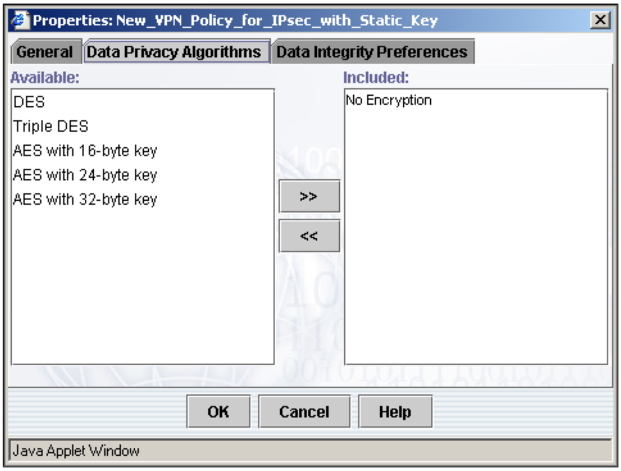
Caption

Type a brief description of the VPN policy.

5 On the Data Privacy Algorithms tab, select a data privacy algorithm from the Available list and click the right-arrow >> button to move it to the Included list. The options are:

- No Encryption
- DES
- Triple DES
- AES with 16-byte key
- AES with 24-byte key
- AES with 32-byte key

In a static policy, you can select only one data privacy algorithm.


Properties: New_VPN_Policy_for_IPsec_with_Static_Key
General
Data Privacy Algorithms
Data Integrity Preferences
>>
<<
OK
Cancel
Help
Java Applet Window

Available:
DES
Triple DES
AES with 16-byte key
AES with 24-byte key
AES with 32-byte key

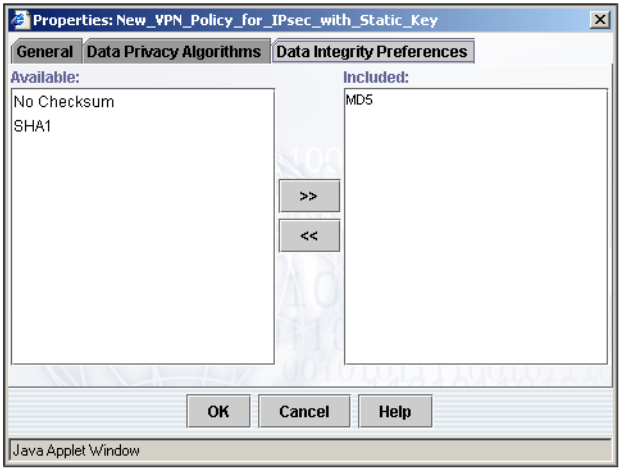
Included:
No Encryption

6 To remove an algorithm, highlight it in the Included list and click the left-arrow << button.

7 On the Data Integrity Preferences tab, select a data integrity preference from the Available list and click the right-arrow >> button to move it to the Included list.

This dictates the type of authentication header that will be prepended to packets sent through the tunnel. Supported types are:

- SHA1 (slower but more secure than MD5)
- MD5 (faster but less secure than SHA1)
- No Checksum (specifies no authentication checksum)



8 Click **OK**.

9 In the VPN Policies window, click **Apply**.

10 On the Selection Menu, click **Activate**.

# Global IKE policies

The security gateway includes a predefined global IKE policy that applies to all your IKE (ISAKMP/Oakley) secure tunnels. This global IKE policy works in conjunction with the IPsec/IKE VPN policy you configure, functioning as Phase 1 negotiations for your IKE tunnel. The IPsec/IKE policy you configure in the Tunnels window functions as the Phase 2 negotiations.

You can only have one Phase 1 global IKE policy, but you can change the values of the default policy at any time.

### To configure the global IKE policy

1 In the SESA Console, in the left pane, click **Policy**.

2 In the right pane, on the Global IKE Policy tab, select global_ike_policy.

3 Click **Properties**.

4 On the General tab, in the Policy Name text box, the name of the global IKE policy is displayed.

5. In the Connection Timeout text box, type an interval, in minutes, for connection timeout.

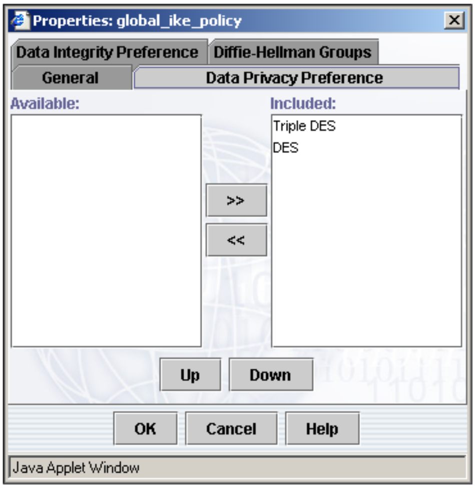
   The default is 1080 minutes (18 hours).

6. On the Data Privacy Preference tab, select the preference from the Available list box and click the right-arrow >> button to move them to the Included list box.

   The options are:

   - DES
   - Triple DES

   These are the data privacy methods for packet data. You can use a combination of these options. The one listed first is tried first. If this method is unsuccessful, then the next method is tried.



Included:
Triple DES
DES

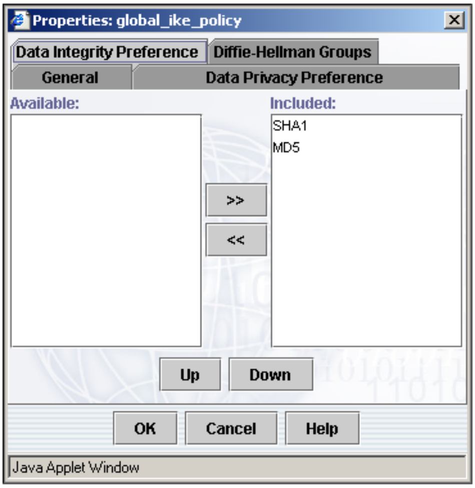
7. To move an entry within the Included list box, highlight it and click **Up** or **Down**.

8. On the Data Integrity Preference tab, select the preference from the Available list box and click the right-arrow >> button to move them to the Included list box.

   The options are:

   - MD5
   - SHA1

   These are the available Data Integrity Preferences used to authenticate packets. Using a combination of methods, such as SHA1 then MD5, indicates that first one method is tried. If that method is unsuccessful, then the next method is tried. Note that SHA1 is slower but more secure than MD5.



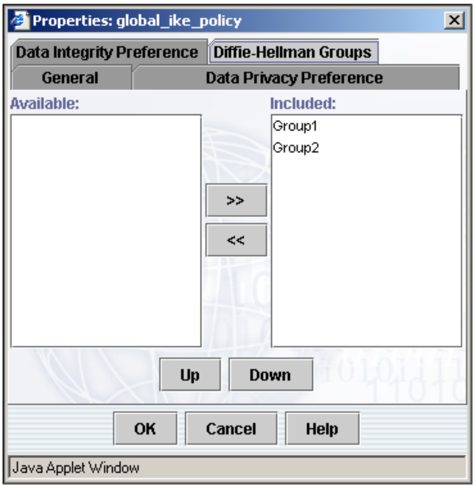
SHA1
MD5

9 To move an entry within the Included list box, highlight it and click **Up** or **Down**.

10 On the Diffie-Hellman Groups tab, select the Group from the Available list box and click the right-arrow >> button to move it to the Included list box.

Diffie-Hellman is the standard IKE method of establishing shared secrets. Group 1 and Group 2 are the Diffie-Hellman group numbers available for establishing these IKE session keys. Group 1 is 768 bits long and Group 2 is

1024 bits long. Using Group 2 is more secure but it also uses more CPU power.



Included: Group1, Group2

11 To move an entry within the Included list box, highlight it and click **Up** or **Down**.

12 Click **OK**.

13 In the Global IKE Policy window, click **Apply**.

14 On the Selection Menu, click **Activate**.
The global IKE policy is now configured for use.

# VPN tunnels

The simplest way to create VPN tunnels is to use the Gateway-to-Gateway Tunnel and the Client-to-Gateway Tunnel Wizards that are accessible from the Action menu in the Security Gateway Management Interface (SGMI). To use these wizards, you must temporarily remove the security gateway from SESA management.

See "Returning to local management" on page 414.

See "Creating tunnels manually" on page 267.

## Creating tunnels manually

For each VPN tunnel you create, you must select a pre-configured security gateway and a network entity local to your site, as well as a pre-configured security gateway and network entity that is remote to your site. If the remote endpoint is a Symantec Client VPN, the configuration differs a bit, as described at the end of this section.

Your local gateway is the outside interface of your security gateway. You must create a security gateway network entity to serve as the local gateway through the Network Entities tab before you can select it for your secure tunnel.

The other gateway you must specify is the remote gateway. You must also create a security gateway network entity as the remote gateway through the Network Entities tab before you can select it for your secure tunnel. While you will likely configure few security gateway network entities to serve as local gateways, you may configure several security gateway network entities to serve as remote gateways.

If your remote tunnel endpoint is a Symantec Client VPN that uses a mobile entity (user or user group), then you only have to select that entity in the Remote Endpoint drop-down list for that end of the tunnel. The Remote Gateway text box is automatically not applicable. Mobile entities act as both the remote endpoint and remote gateway for the remote end of the tunnel.

See "Configuring a Client-to-Gateway VPN tunnel using IPsec with IKE" on page 269.

See "Configuring a VPN tunnel using IPsec with a static key" on page 271.

## Configuring a Gateway-to-Gateway VPN Tunnel Using IPsec With IKE

The selection of Gateway-to-Gateway VPN Tunnel Using IPsec With IKE is used to create tunnels between security gateways.

For each Gateway-to-Gateway tunnel you create, you must configure a security gateway and network entity local to your site, as well as a security gateway and network entity at the remote end of the tunnel. Your local gateway is the outside interface of the security gateway. You must create a security gateway network entity before you can select it for the tunnel.

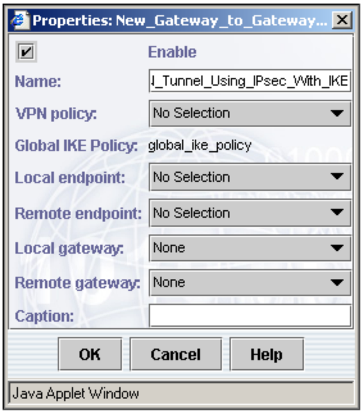
The other security gateway you specify is a remote gateway. You must also create a security gateway network entity as the remote gateway using the Network Entities Properties window before you can select it for your tunnel. While you will likely configure few security gateways to serve as local gateways, you may configure several security gateways to serve as remote gateways.

### To configure a Gateway-to-Gateway VPN Tunnel using IPsec with IKE

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Tunnels tab, click **New VPN Tunnel > Gateway to Gateway VPN Tunnel Using IPsec With IKE**.

3 Click **Properties**.



☑ Enable

Name: I_Tunnel_Using_IPsec_With_IKE

VPN policy: No Selection

Global IKE Policy: global_ike_policy

Local endpoint: No Selection

Remote endpoint: No Selection

Local gateway: None

Remote gateway: None

Caption:

4 In the Properties window, do the following:

| | |
|---|---|
| Enable | To enable the tunnel, check **Enable**. This check box is checked by default. |
| Name | Type a name for the tunnel. The name cannot contain spaces. |
| VPN Policy | Select a VPN policy for use with your tunnel. |
| Global IKE Policy | The global IKE policy is displayed. |
| Local endpoint | Select a network entity to serve as the local tunnel endpoint. |
| Remote endpoint | Select a network entity to serve as the remote tunnel endpoint. |
| Local gateway | Select a security gateway network entity to serve as the local gateway interface for the tunnel. |
| Remote gateway | Select a security gateway network entity to serve as the remote gateway interface for the tunnel. |
| Caption | Type a brief description of the tunnel. |

5 Click **OK**.

6 In the VPN Tunnels window, click **Apply**.

7 On the Selection Menu, click **Activate**.
The tunnel is now configured for use.

## Configuring a Client-to-Gateway VPN tunnel using IPsec with IKE

The selection of Client-to-Gateway Tunnel Using IPsec With IKE is used to create tunnels between the security gateway and a Symantec Client VPN user.

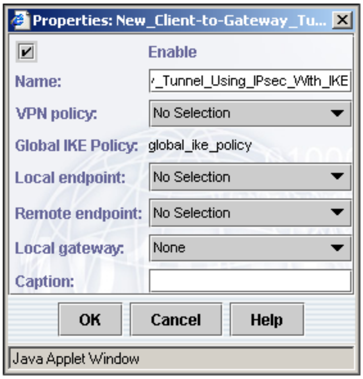
If your remote tunnel endpoint is a Symantec Client VPN user, then you must configure a VPN Security network entity to serve as the remote endpoint of the tunnel. VPN Security network entities serve as both the network entity and security gateway for their end of the VPN tunnel.

### To configure a Client-to-Gateway VPN tunnel using IPsec with IKE

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Tunnels tab, click **New VPN Tunnel > Client-to-Gateway Tunnel Using IPsec With IKE**.

3 Click **Properties**.



Properties: New_Client-to-Gateway_Tu...

☑ Enable

Name: /_Tunnel_Using_IPsec_With_IKE

VPN policy: No Selection

Global IKE Policy: global_ike_policy

Local endpoint: No Selection

Remote endpoint: No Selection

Local gateway: None

Caption:

4 In the Properties window, do the following:

Enable

To enable the tunnel, check **Enable**.

Name

Type a name for the tunnel. The name cannot contain any spaces.

VPN Policy

In this drop-down list, select a VPN policy.

Global IKE Policy

The global IKE policy is displayed.

Local endpoint

In this drop-down list, select a network entity to serve as the local tunnel endpoint.

Remote endpoint

In this drop-down list, select a user or group network entity to serve as the remote tunnel endpoint. This must be an IKE-enabled user.

Local gateway

In this drop-down list, select a security gateway network entity to serve as the local security gateway interface for the tunnel.

This entity name will be used as the Phase 1 ID for the IKE negotiation. If the name of the local gateway on the other gateway is different, the Phase 1 ID must be changed or the tunnel will never successfully negotiate a connection.

Caption

Type a brief description of the tunnel.

5 Click **OK**.

6 In the VPN Tunnels window, click **Apply**.

7 On the Selection Menu, click **Activate**.
The tunnel is now configured for use.

## Configuring a VPN tunnel using IPsec with a static key

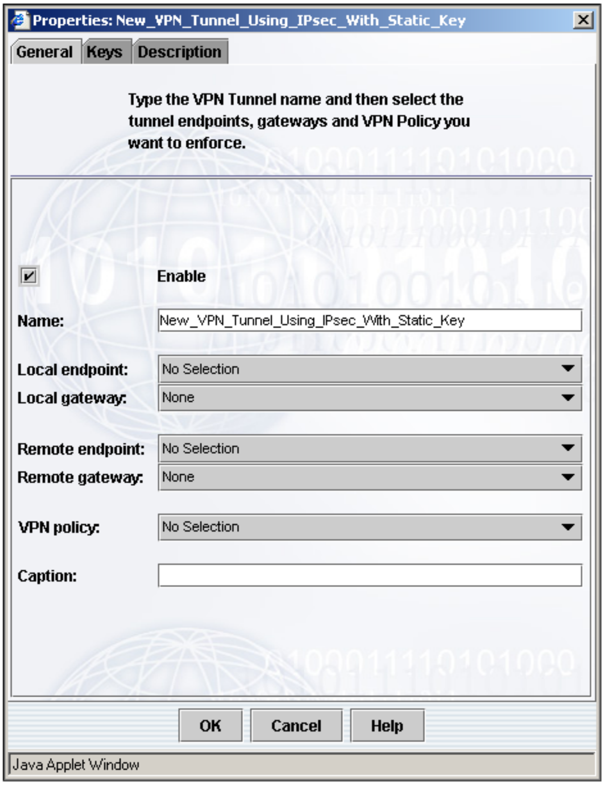
You can use the pre-configured IPsec/Static policies that ship with the security gateway or you can create your own to use with IPsec with Static keys.

### To configure a VPN tunnel using IPsec with a static key

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Tunnels tab, click **New VPN Tunnel > VPN Tunnel Using IPsec With Static Key**.

3 Click **Properties**.



Type the VPN Tunnel name and then select the tunnel endpoints, gateways and VPN Policy you want to enforce.

☑ Enable

Name: New_VPN_Tunnel_Using_IPsec_With_Static_Key

Local endpoint: No Selection

Local gateway: None

Remote endpoint: No Selection

Remote gateway: None

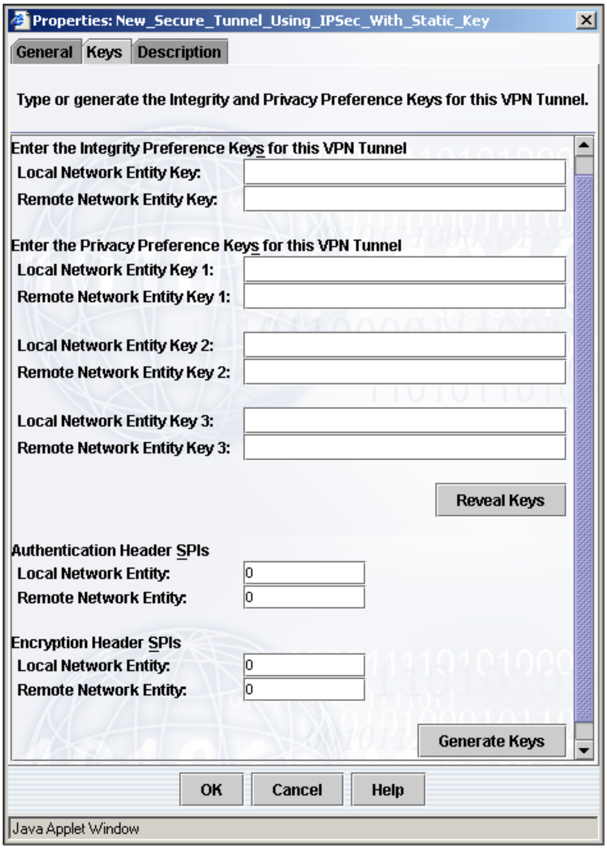
VPN policy: No Selection

Caption:

4 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the tunnel, check **Enable**. This check box is checked by default. |
| Name | Type a name for the tunnel. The name cannot contain spaces. |
| Local endpoint | Select a network entity to serve as the local tunnel endpoint. |
| Local gateway | Select a security gateway network entity to serve as the local gateway interface for the tunnel. |
| Remote endpoint | Select a network entity to serve as the remote tunnel endpoint. |
| Remote gateway | Select a security gateway network entity to serve as the remote gateway interface for the tunnel. |
| VPN policy | Select a static VPN policy. The selection you make for the tunnel (static_default_crypto, static_default_crypto_strong, static_aes_crypto_strong, or any static policy that you have created) determines what further configuration information is needed. |
| Caption | Type a brief description of the tunnel. |

5 On the Keys tab, do the following:



Properties: New_Secure_Tunnel_Using_IPSec_With_Static_Key

General | Keys | Description

Type or generate the Integrity and Privacy Preference Keys for this VPN Tunnel.

Enter the Integrity Preference Keys for this VPN Tunnel

Local Network Entity Key:

Remote Network Entity Key:

Enter the Privacy Preference Keys for this VPN Tunnel

Local Network Entity Key 1:

Remote Network Entity Key 1:

Local Network Entity Key 2:

Remote Network Entity Key 2:

Local Network Entity Key 3:

Remote Network Entity Key 3:

Authentication Header SPIs

Local Network Entity: 0

Remote Network Entity: 0

Encryption Header SPIs

Local Network Entity: 0

Remote Network Entity: 0

Generate Keys

If you’ve chosen to use a data integrity preference in your VPN policy, generate a set of algorithm keys by clicking **Generate Keys**.

If you’ve also elected to use a data privacy algorithm, when you click Generate Keys, Symantec generates a set of privacy algorithm keys. If you’ve selected DES rather than 3DES as the data privacy algorithm in your VPN policy, only one set of keys is required instead of three.

The appropriate key fields are available according to your VPN policy selection. It is strongly recommended that you use the Generate Keys button rather than creating your own keys.

| | |
|---|---|
| Local Network Entity Key | Type the Data Integrity Key for the local entity.<br>This dictates the type of authentication header that will be prepended to packets sent through the tunnel. The options are SHA1, MD5, and None. MD5 is faster but less secure than SHA1. |
| Remote Network Entity Key | Type the Data Integrity Key for the remote entity |
| Local Network Entity Key 1 | Type the Data Privacy Algorithm for the local entity.<br>This specifies the encapsulation security payload for packets sent through the tunnel. Supported types are 3DES, DES, AES, AES12, AES24, AES32, and None.<br>The combination Data Integrity Algorithm = None and Data Privacy Algorithm = None is not permitted within a VPN policy. |
| Remote Network Entity Key 2 | Type the Data Privacy Algorithm for the remote end of the tunnel. |
| Authentication Header SPIs Local Network Entity | Type the Security Parameter Index (SPI) for the local endpoint of the tunnel.<br>SPIs specify the tunnels on a security gateway for a given protocol as Authentication Header (AH) or Encapsulation Security Payload (ESP). The SPI is included in the packet header and lets the receiver identify the tunnel to which the packet belongs. |
| Authentication Header SPIs Remote Network Entity | Type the SPI for the remote endpoint of the tunnel.<br>SPIs specify the tunnels on a security gateway for a given protocol as Authentication Header (AH) or Encapsulation Security Payload (ESP). The SPI is included in the packet header and lets the receiver identify the tunnel to which the packet belongs. |
| Encryption Header SPIs Local Network Entity | Type the SPI for the local endpoint of the tunnel.<br>SPIs specify the tunnels on a security gateway for a given protocol as Authentication Header (AH) or Encapsulation Security Payload (ESP). The SPI is included in the packet header and lets the receiver identify the tunnel to which the packet belongs. |

| | |
|---|---|
| Encryption Header SPIs Remote Network Entity | Type the SPI for the remote endpoint of the tunnel.<br>SPIs specify the tunnels on a security gateway for a given protocol as Authentication Header (AH) or Encapsulation Security Payload (ESP). The SPI is included in the packet header and lets the receiver identify the tunnel to which the packet belongs. |
| Generate Keys | To generate keys, click **Generate Keys**. |

6 On the Description tab, you can add a more detailed description of the tunnel than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the VPN Tunnels window, click **Apply**.

9 On the Selection Menu, click **Activate**.
Before using the static tunnel, you must temporarily leave SESA, and then stop and restart the security gateway.

# Preventing attacks

This chapter includes the following topics:

- About preventing attacks
- Understanding basic firewall protection settings
- Configuring antivirus component server settings
- Configuring intrusion detection and intrusion prevention (IDS/IPS)

## About preventing attacks

This chapter describes the controls that are available in Symantec security gateways to help you secure your organization against unwanted intruders and virus attacks.

Symantec security gateways offer a level of protection that includes defining filters, enabling protection for logical network interfaces, and configuring address transforms.

For environments that require more rigorous protection, appliance-based Symantec security gateways include integrated antivirus, intrusion detection, and intrusion and prevention (IDS/IPS) protection capabilities.

You can configure these features from the SESA Console for all security gateways with integrated SESA management support.

**Note:** Antivirus and intrusion detection and prevention are not currently supported for the Symantec Enterprise Firewall, version 8.0.

# Understanding basic firewall protection settings

This section describes the following basic firewall protection settings that you can configure from the SESA Console:

- Defining filters
- Enabling protection for logical network interfaces
- Configuring address transforms
- Redirecting services
- NAT pool addressing
- Creating virtual clients

## Defining filters

The security gateway includes filters that you can use to check each arriving packet against specified criteria to allow or deny access.

You can use filters to restrict the types of packets passing into or out of the host system over a given interface, based on the direction of the transmission and the protocol being used.

You can use the Filters Properties window to create the following filtering mechanisms:

- Individual filters
- Aggregations of filters or filter groups

Each filter is designated as either Allow or Deny. In general, you use Allow filters and only add Deny filters to filter groups. This is because the purpose of Deny filters is to refine the packet traffic allowed through an interface or tunnel. You can use a Deny filter to do this by using it in combination with an Allow filter designed to permit a broad range of protocols.

When applied to tunnels, filters can restrict the services available through a VPN tunnel, providing finer-grained control of information distribution.

**Note:** Once a filter is applied, unless there is an explicit allow filter, no traffic gets through. This is because, by default, a filter denies all traffic. When you create an Allow filter, only the traffic you specifically designate is allowed. Therefore, if you create a stand-alone deny filter that is not part of a group, it denies all traffic, not just the traffic you select to deny.

A filter consists of at least one instance of a protocol and direction, matched to a specific pair of network entities. All filters are characterized as A -> B and B -> A, where the letters A and B stand for the network entities.

The direction of the arrow specifies which entity can initiate the connection. For instance, A -> B HTTP means “entity A can initiate an HTTP connection to B.” After the connection is established, entity B may (as in the case of HTTP) need to send data back to the requesting entity.

## Creating an allow filter

The filters and filter groups you create specify an allow or deny action based on an ordered set of match criteria. The order of filter elements is important since the first match to any packet passing through the security gateway or the tunnel is the only one that applies.

For example, a filter template called securemail encompasses the following:

A -> B SMTP, B -> A SMTP

The filter template securefiles encompasses the following:

A -> B FTP, B -> A FTP

Applying the filter group secureservers, comprised of securemail and securefiles, to a tunnel is equivalent to applying all these filter elements as follows:

A -> B SMTP

B -> A SMTP

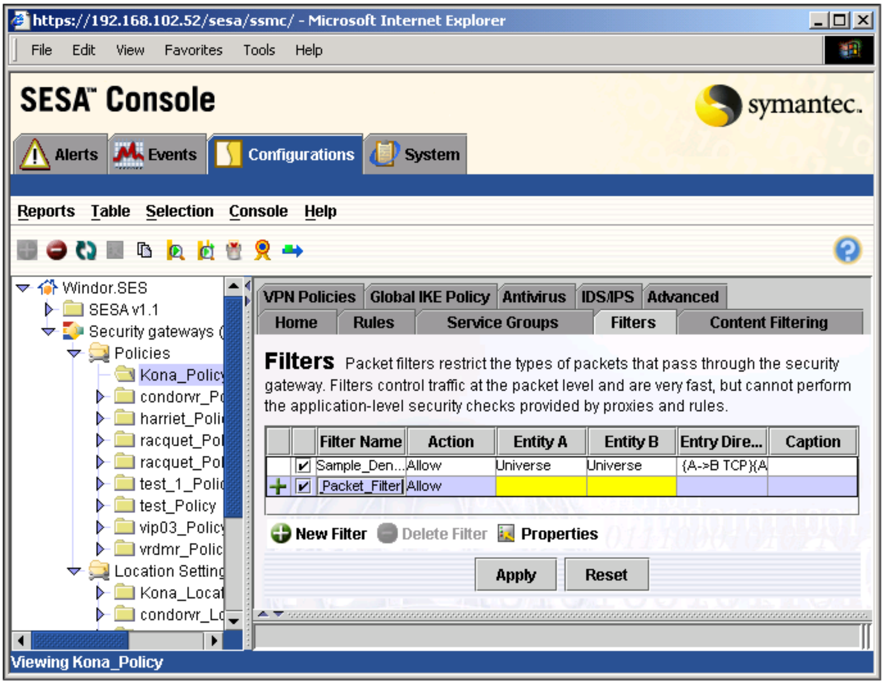
A -> B FTP

B -> A FTP

### To create an allow filter

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

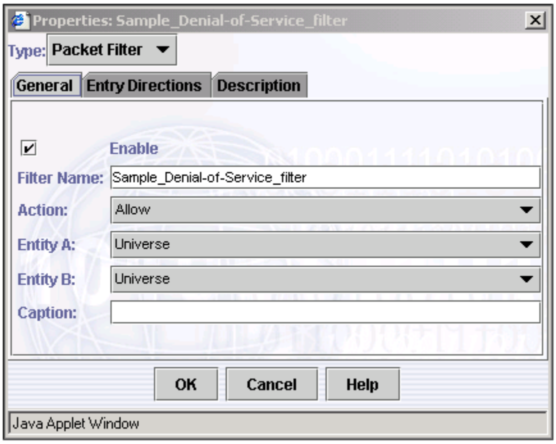
2 In the right pane, on the Filters tab, click **New Filter > Packet Filter**.



**Filters** Packet filters restrict the types of packets that pass through the security gateway. Filters control traffic at the packet level and are very fast, but cannot perform the application-level security checks provided by proxies and rules.

| | | Filter Name | Action | Entity A | Entity B | Entry Dire... | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | Sample_Den... | Allow | Universe | Universe | {A->B TCP}{A | |
| + | ☑ | Packet_Filter | Allow | | | | |

3 Click **Properties**.



Properties: Sample_Denial-of-Service_filter

Type: Packet Filter

☑ Enable

Filter Name: Sample_Denial-of-Service_filter

Action: Allow

Entity A: Universe

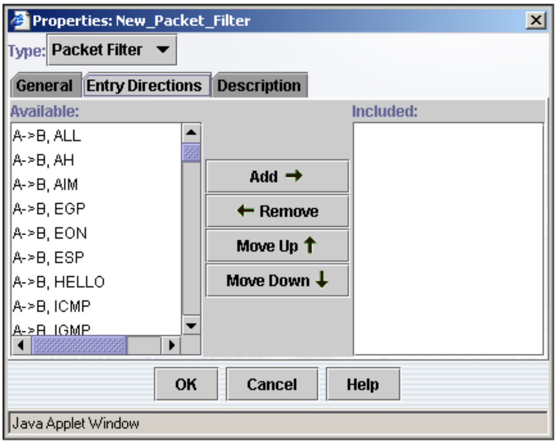
Entity B: Universe

Caption:

4 In the Properties window, on the General tab, in the Type drop-down list, make sure **Packet Filter** is selected and then do the following:

| | |
|---|---|
| Enable | To enable packet filters, check **Enable**.<br>This check box is enabled by default. |
| Filter Name | Type a name for the filter.<br>Changing the value in the Type drop-down list does not change the entry in the Filter Name text box |
| Action | Select whether this filter will be Select **Allow** or **Deny**.<br>The default is Allow. |
| Entity A | Select a network entity to serve as entity A for this filter. |
| Entity B | Select a network entity to serve as entity B for this filter |
| Caption | Type a brief description of the filter. |

5 On the Entry Directions tab, select a protocol from the Available list and click **Add** to move it to the Included list.



6 To remove a protocol from the filter, highlight it in the Included list and then click **Remove**.

7 To rearrange the order of protocols in the Included list, highlight an entry and then click **Move Up** or **Move Down**.

8 On the Description tab, you can add a more detailed description of the filter than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 On the Filters tab, click **Apply**.

11 On the Selection menu, click **Activate.**
The filter is now configured for use on an interface or in a tunnel.

## Creating a filter group

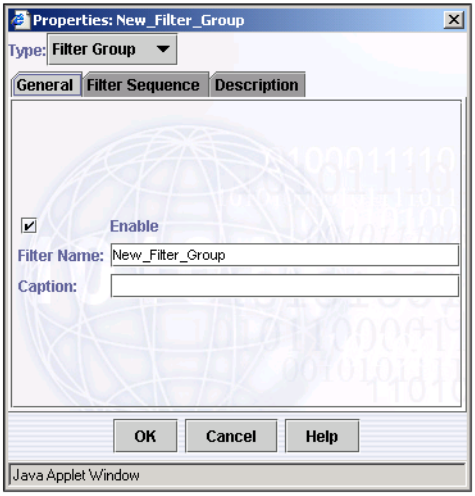
Once you have configured individual packet filters, you can put them together in filter groups to refine the filtering of traffic.

### To create a filter group

1 In the SESA Console, on the Configurations View tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Filters tab, click **New Filter > Filter Group**.

3 Click **Properties**.


Properties: New_Filter_Group

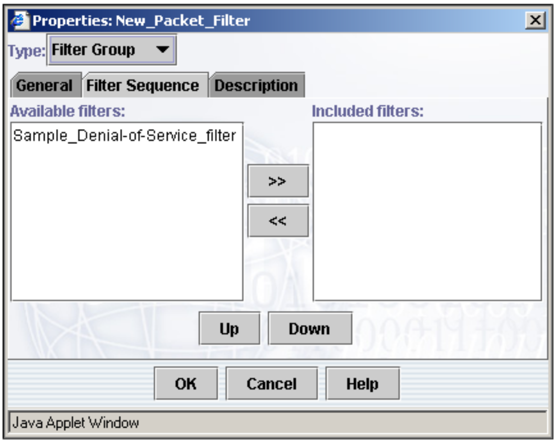
Type: Filter Group

☑ Enable

Filter Name: New_Filter_Group

Caption:

4 In the Properties window, on the General tab, in the Type drop-down list, make sure **Filter Group** is selected and then do the following:


Properties: New_Packet_Filter

Type: Filter Group

Available filters: Sample_Denial-of-Service_filter

Included filters:

Enable

To enable the filter group, check **Enable**.

This check box is enabled by default.

Filter Name

Type a name for the filter.

Changing the value in the Type drop-down list does not change the entry in the Filter Name text box

| | |
|---|---|
| Enable | To enable the filter group, check **Enable**.<br>This check box is enabled by default. |
| Caption | Type a brief description of the filter. |

5 On the Filter Sequence tab, select the filters you want to put in the filter group in the Available filters list and click the right-arrow >> button to move them to the Included filters list.

6 To rearrange the order of the filters in the sequence, highlight a filter in the Included filters list and click **Up** or **Down**.

7 To remove a filter from the filter group, highlight it in the Included filters list and click the left-arrow button to move it to the Available filters list.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

9 Click **OK**.

10 On the Filters tab, click **Apply**.

11 On the Selection menu, click **Activate.**
The filter group is now configured for use on an interface or in a tunnel.

## Enabling protection for logical network interfaces

Logical network interfaces are an abstraction of the system's network interfaces. Logical network interfaces let an administrator apply the same general configuration to multiple security gateways, even if those security gateways have different physical hardware adapters installed.

When you run the System Setup Wizard on each security gateway, the name defined for each network interface creates a corresponding logical network interface. If you configure each security gateway to use the same logical network interface naming convention when you configure the network adapters in the System Setup Wizard, you can apply rules that use the logical network interface.

The Logical Network Interfaces window lets you turn on and off the following security features associated with the logical network interfaces.

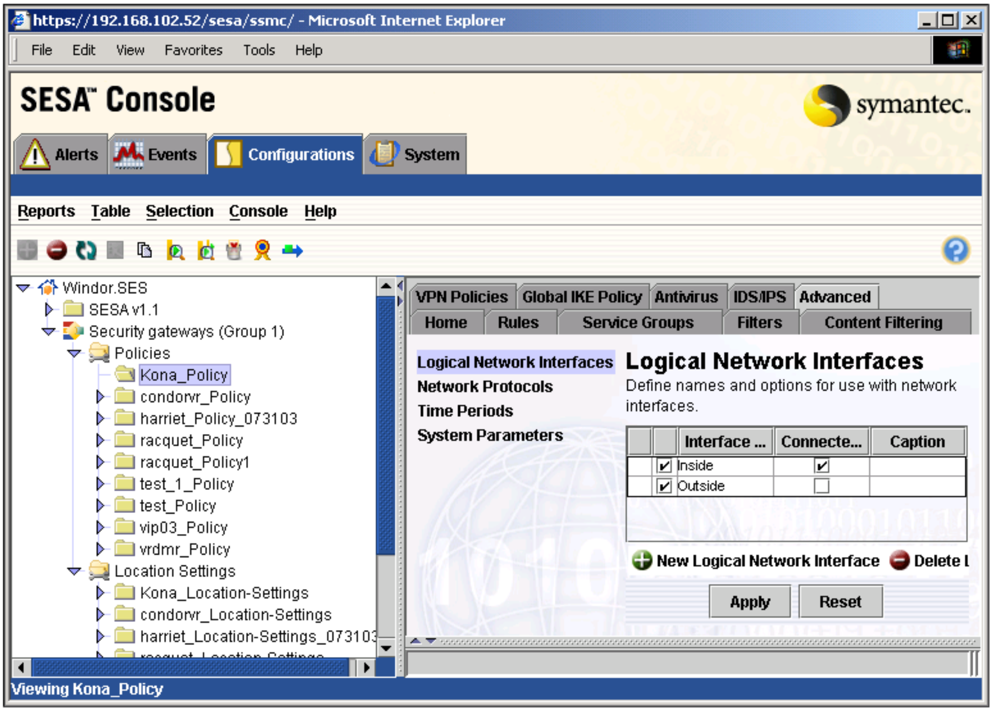
| | |
|---|---|
| Spoof protection | Spoof protection works by associating selected networks with specific interfaces. This association helps the security gateway know whether a packet has arrived by the expected interface. This protects your network from an outside machine that tries to gain access by making its IP address look like an address behind the security gateway machine. If a request originates from an outside interface but has an internal address, it is dropped. |

| | |
|---|---|
| SYN flood protection | SYN flooding, a denial-of-service attack, occurs in TCP/IP communications when the lack of an ACK response results in half-open connection states. On some systems, too many half-open states prevents legitimate connections from being established. The SYN flooding protection feature resets half-open connections. |
| Port scanning capabilities | A common method for attacking a site is to connect to port after port until a weakness is found. Port scan detection registers a message (number 347) when an attempt is made to connect to an unused or disallowed well known port on an interface. This message logs the source and attempted destination of the connection. |
| Provide recursion and expose private DNS information | By default, DNS queries to the inside interface provide private DNS information. DNS queries to the outside interface do not provide private DNS information. You can override the default behavior using this check box. |
| Enable IDS/IPS | You can enable the intrusion detection and prevention (IDS/IPS) feature on a per-interface basis. |
| Suppress Reset and ICMP error messages | Distributed denial-of-service attacks make use of ICMP messages to remotely launch attacks using other servers as launch points. This option prevents ICMP from being used as a covert channel. All requests for closed ports are silently dropped. |

### To configure a logical network interface

1. In the SESA Console, on the Configurations View tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Advanced tab, click **Logical Network Interfaces**.



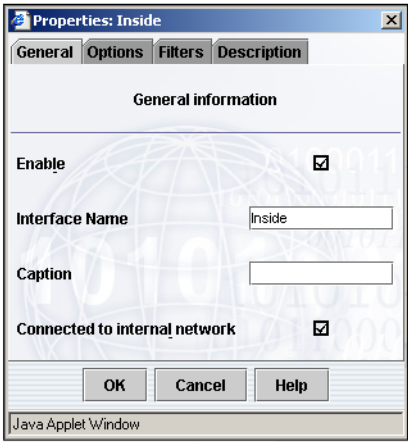
**Logical Network Interfaces**

Define names and options for use with network interfaces.

| | | Interface ... | Connecte... | Caption |
|---|---|---|---|---|
| | ☑ | Inside | ☑ | |
| | ☑ | Outside | ☐ | |

3 Below the table, click **New Logical Network Interface**.

4 Right-click in the new row and select **Properties**.



General information

Enable ☑

Interface Name: Inside

Caption:

Connected to internal network ☑

5 On the General tab, do the following:

Enable

To enable the logical network interface, check **Enable**.

This check box is enabled by default.

Interface Name

Type a name for this logical network interface.

Caption

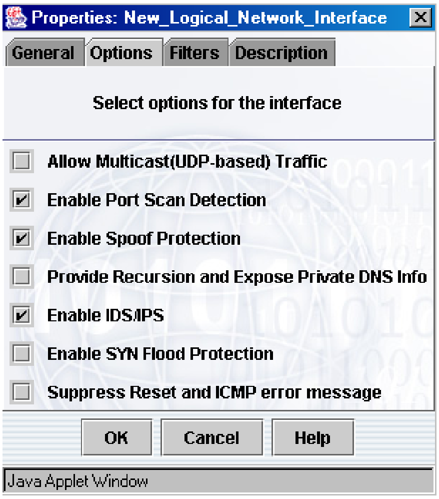
Type a brief description of the logical network interface.

Connected to internal network

If the logical network interface is connected to your internal network, check this box.

This check box is enabled by default.

6 On the Options tab, do the following:



Select options for the interface

☐ Allow Multicast(UDP-based) Traffic
☑ Enable Port Scan Detection
☑ Enable Spoof Protection
☐ Provide Recursion and Expose Private DNS Info
☑ Enable IDS/IPS
☐ Enable SYN Flood Protection
☐ Suppress Reset and ICMP error message

Allow Multicast (UDP-Based) Traffic

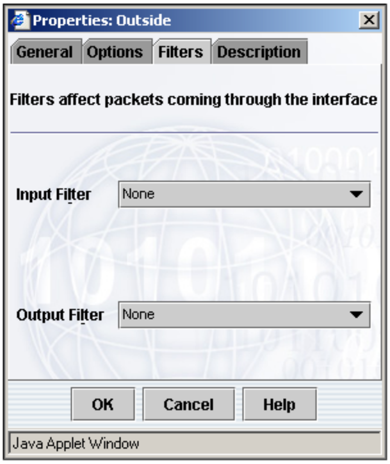
Check to allow multicast UDP addressing

This check box is unchecked by default. Generally, you should not allow multicast traffic on security gateway interfaces. However, you may need to allow it if a host system is running OSPF routing or another application that requires it.

| | |
|---|---|
| Enable Port Scan Detection | To enable port scan detection, leave this box checked.<br>This check box is enabled by default on outside interfaces and unchecked by default on inside interfaces. Port scan detection registers a message when an attempt is made to connect to an unused or disallowed port on an interface. The message logs the source and attempted destination of the connection. |
| Enable Spoof Protection | To enable spoof protection, leave this box checked.<br>This check box is enabled by default. Spoof protection works by associating selected networks with specific interfaces. This gives the security gateway a way of knowing whether a packet has arrived by an expected interface. |
| Expose Private DNS Info | If you want private DNS information to be exposed on this interface, check this box.<br>This check box is disabled by default. |
| Enable IDS/IPS | To enable intrusion detection and prevention (IDS/IPS), leave this box checked.<br>This check box is enabled by default. |
| Enable SYN Flood Protection | To enable SYN flood protection on the interface, check this box.<br>This check box is disabled by default. SYN flooding, a denial of service attack, occurs in TCP/IP communications when the lack of an ACK response results in half-open connection states. SYN flooding protection resets half-open connections.<br>**Note:** SYN flood protection impacts security gateway performance. You should use this feature only when you suspect you are under attack and only on an outside interface. |
| Suppress Reset and ICMP error message | To put the interface into stealth mode, check the Suppress Reset and ICMP error message check box.<br>This check box is disabled by default. |

7. Click **Apply**.
8. On the Selection menu, click **Activate**.
   The SYN flood algorithm is now configured.
9. On the Filters tab, in the Input Filter drop-down list, select a filter with which to filter traffic entering the interface.

The selections are None, Sample_Denial-of-Service_filter, and any filters you have pre-configured. The default is None.



Filters affect packets coming through the interface

Input Filter: None

Output Filter: None

10 In the Output Filter drop-down list, select a filter with which to filter traffic leaving the interface.
The selections are None, Sample_Denial-of-Service_filter, and any filters you have pre-configured. The default is None.

11 On the Description tab, you can add a more detailed description of the interface than you typed on the General tab in the Caption text box.

12 Click **OK**.

13 In the Logical Network Interfaces window, click **Apply**.

14 On the Selection menu, select **Activate**.
The logical network interface is now configured for use. Changes made here require that you reboot the security gateway after a successful activation.

## Configuring address transforms

Address Transforms provide the ability to control addressing through the system, letting you present routable addresses for a connection passing through an outside system interface or VPN tunnel. This routes connections to the correct destination when your site has addressing overlap issues or other routing problems.

Remember that the default addressing scheme of the system, for connections passing through interfaces, is to overwrite packets with its own address for outgoing connections. The default addressing scheme of the system for connections passing through secure tunnels is to leave packet source and destination addresses untouched, revealing client addresses. The Address Transforms Properties window lets you manipulate these default addressing schemes.

**Note:** If you are using NAT for address hiding with secure tunnels, you must have ESP selected in your VPN policy. NAT does not work with secure tunnels when AH is selected.

In the case of a SESA-managed security gateway, you can use address transforms to manage a security gateway through another security gateway by creating an address transform to preserve the original address of the SESA Manager. To do this, create an address transform with a source of the SESA Manager and have it preserve the address of the source (in this case, the SESA Manager).

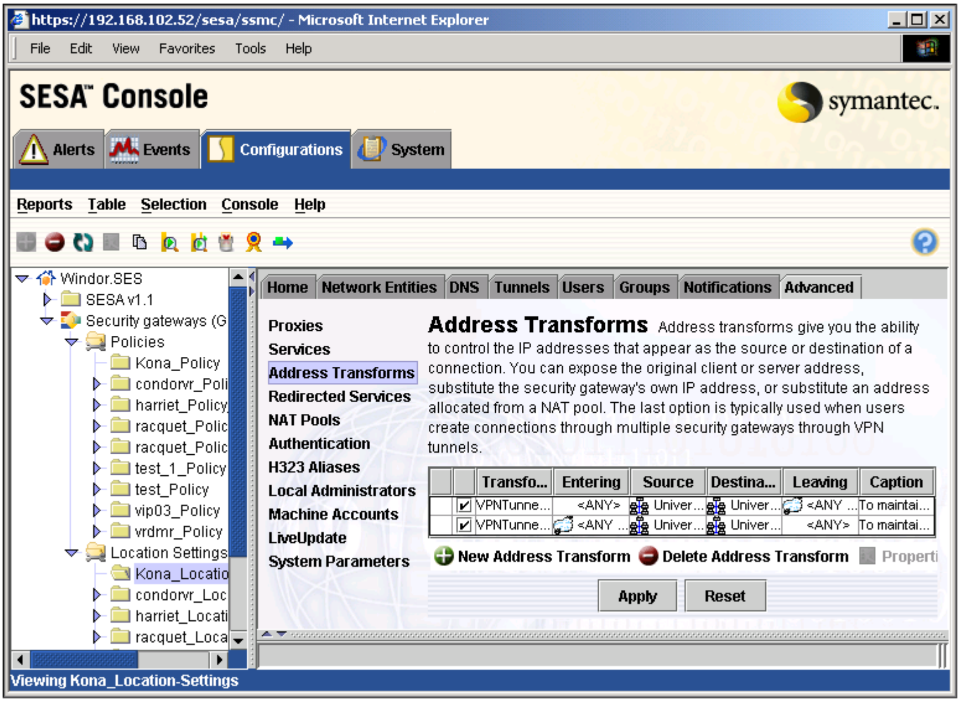
For further information on address transforms through the system, refer to the *Symantec Security Gateways Reference Guide*.

**Note:** When configuring address transforms using NAT, you must select a server entity or outgoing interface for which the NAT address is valid and routable back to the system. (For example, using <ANY> and Universe could be a problem, since a NAT address will not be valid across all interfaces.)

### To configure an address transform

1. In the SESA Console, on the Configurations view tab, in the left pane, click the location settings in which you want to make a change.

2 In the right pane, on the Advanced tab, click **Address Transforms**.



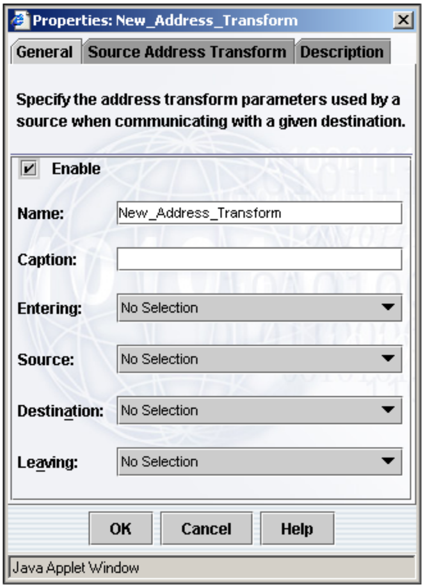
**Address Transforms** Address transforms give you the ability to control the IP addresses that appear as the source or destination of a connection. You can expose the original client or server address, substitute the security gateway's own IP address, or substitute an address allocated from a NAT pool. The last option is typically used when users create connections through multiple security gateways through VPN tunnels.

| | | Transfo... | Entering | Source | Destina... | Leaving | Caption |
|---|---|---|---|---|---|---|---|
| | ☑ | VPNTunne... | <ANY> | Univer... | Univer... | <ANY ... | To maintai... |
| | ☑ | VPNTunne... | <ANY ... | Univer... | Univer... | <ANY> | To maintai... |

3 Click **New Address Transform**.

Address transforms are direction specific. You can have a transform change in one direction or both. The default transform for tunneled packets have a transform for each direction. Address transforms are applied to source addresses.

4 In the Address Transforms table, right-click the new entry and select **Properties**.



Specify the address transform parameters used by a source when communicating with a given destination.

☑ Enable

Name: New_Address_Transform

Caption:

Entering: No Selection

Source: No Selection

Destination: No Selection

Leaving: No Selection

5 On the General tab, do the following:

Enable

To enable address transforms, check **Enable**.

This check box is enabled by default.

Name

Type a name for the address transform.

Caption

Type a brief description of the address transform.

Entering

Select the interface or secure tunnel that the client is using to access the designated address.

For example, if all packets coming from the interface to the network destination are to undergo the designated NATing, then select the interface here. But if NATed packets are only meant to be traveling between a source and destination named in a specific secure tunnel, select the tunnel here.

Source

Select among the available network entities for the entity that is the client or real address for a connection.

Destination

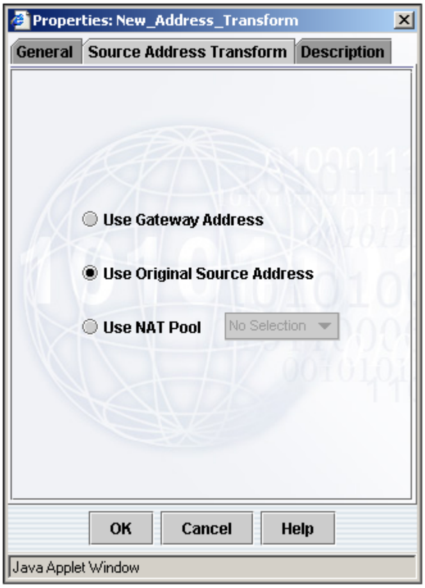
Select the server entity that is communicating with the client entity.

Leaving

Select the interface or the secure tunnel that the client is using to access the designated server.

For example, if all packets coming from the interface to the network destination are to undergo the designated NATing, then select the interface. If NATed packets are only meant to be traveling between a source and destination named in a specific VPN tunnel, select the tunnel.

6 On the Source Address Transform tab, to have the real packet source address overwritten by the security gateway address for the connection, click **Use Gateway Address**.



○ Use Gateway Address

● Use Original Source Address

○ Use NAT Pool No Selection

This is the default addressing scheme for outgoing connections, except in the case of VPN tunnels. In VPN tunnels, actual source addresses are applied to incoming and outgoing packets, unless this option button is selected.

7 To prevent the security gateway system from overwriting the real source address for the connection, effectively applying source side transparency to the connection, click **Use Original Source Address**.

You cannot select Use Original Source Address if you have selected the same security gateway system interface for both the Entering and Leaving fields. When the same interface is used for both, the security gateway address is automatically used to correctly route the connection.

8 To apply a configured NAT pool addressing scheme to a VPN tunnel or non-tunneled connection, click **Use NAT Pool**.

If you are using a NAT pool, select it from the drop-down list. In the case of VPN tunnels, you must configure an address transform entry that uses a tunnel as the incoming or outgoing interface to use NAT pool addressing with that particular tunnel.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

11 In the Address Transforms window, click **Apply**.

12 On the Selection menu, select **Activate**.
The address transform is now configured for use.

# Redirecting services

This section explains how to configure service redirection on the security gateway. Service redirection involves defining a virtual address on which a service is available and redirecting connections for that address to a non-published destination. It gives outside users the appearance of transparent access to information on systems behind the security gateway without disclosing the systems' addresses.

**Note:** If you are configuring a service redirection for the Common Internet File System (CIFS) service, the hosts.pub file on the security gateway you are configuring must have an entry for both the client (Requested Address) and the target (Redirected Address) machines. The host entry for the target machine must be the actual IP address of the system, not the Virtual IP (VIP) address.

## Using redirected services

You can configure the security gateway to redirect a request for a service to another computer behind the system. For example, an outside user could connect to 206.7.7.23 (an address created for this purpose) for FTP. The service could be forwarded to 192.168.3.11 without the user being aware of the forwarding.

You can set up the security gateway to automatically redirect connection attempts destined for one host and port to a different host/port combination. Redirection provides outside users with the appearance of transparent access to information on systems behind the host without disclosing the system's addresses.

**Note:** You cannot specify ports with address transforms, but you can with a redirect, thereby changing the destination port. For service redirection, traffic must be routed through the proxy system.

Using service redirection involves defining a virtual address on which a service is available and redirecting connections for that address to a protected host. In this context, a virtual address is an IP address that is not associated with any host on any machine in your network.

For service redirection from a virtual address to work, access attempts to that address and service must be directed to the system's interface. Otherwise, the host will not see the access attempt.

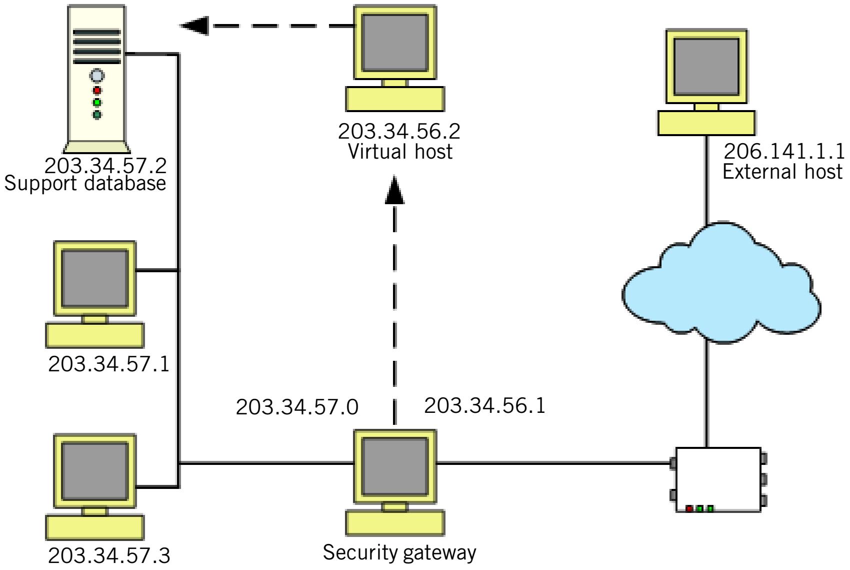
Finally, for service redirection to work, you must set up a rule that allows the service to be passed. You must use the service being redirected in the rule. Redirected services are handled by proxies.

**Note:** If you are using a service in your configured redirection that is not supported by an existing proxy (for example, finger), you must create a GSP for that service and use the GSP in your service group and apply it to a rule. You can then select the protocol in the Redirected Services Properties window. All redirected services are subject to authorization rules and logging. You can redirect requests to the same virtual address, but different servers, for different applications. For example, a single address that is published on an outside interface can be redirected to one server for FTP requests and to a different system for Web requests.

## Example redirected service network

This is a simple case involving a support database. As shown in Figure 11-1, the support database is on a system in a protected service network.

**Figure 11-1** Redirection of FTP request



If you want to make information on this database available to users on the Internet and at the same time, you want to conceal the true identity of this host, use a virtual address (203.34.56.2). Service requests to this virtual address are redirected to the actual support database.

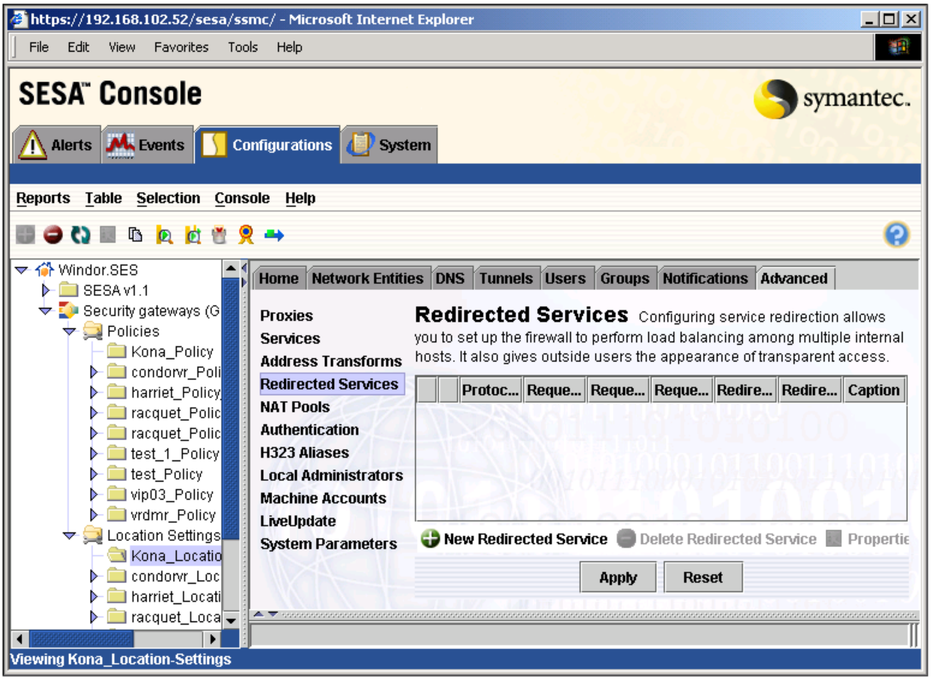
## Configuring redirected services

The first step in configuring redirected services is to configure your network so that packets destined for the virtual address are sent to the system. If the virtual address is on the same subnet as the security gateway's real address, the system automatically routes it using Address Resolution Protocol (ARP). Otherwise, you can do this with a static route on your Internet router. For the example shown in Figure 11-1, add a static route to the router's configuration, specifying that services destined for the 203.34.56.2 system be sent to the system.

### To configure redirected services

1 In the SESA Console, on the Configurations view tab, in the left pane, click on the location settings in which you want to make a change.

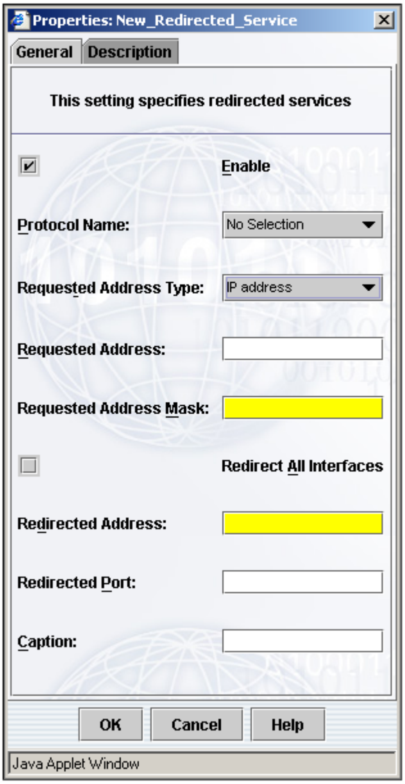
2 In the right pane, on the Advanced tab, click **Redirected Services**.



Configuring service redirection allows you to set up the firewall to perform load balancing among multiple internal hosts. It also gives outside users the appearance of transparent access.

3 Click **New Redirected Service**.

4 On the Redirected Services table, right-click the new entry, then select **Properties**.



Properties: New_Redirected_Service

General | Description

This setting specifies redirected services

☑ Enable

Protocol Name: No Selection

Requested Address Type: IP address

Requested Address:

Requested Address Mask:

☐ Redirect All Interfaces

Redirected Address:

Redirected Port:

Caption:

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable redirected services, check **Enable**.<br>This check box is enabled by default. |
| Protocol Name | Select the type of protocol you want to redirect. |
| Requested Address type | Select either IP Address or Interface. |
| Requested Address | If IP Address was selected as the Requested Address Type, type the IP address to which the traffic was destined.<br>If Interface was selected as the Requested Address Type, select the interface from the drop-down list |

| | |
|---|---|
| Requested Address Mask | Type the address mask of the request.<br>You can use the Requested Address Mask to redirect a network. For example if you map 203.34.56.0 to 203.34.57.0 (mask 255.255.255.0), when you connect to 203.34.56.10 you will be redirected to 203.34.57.10. |
| Redirect All Interfaces | To redirect traffic on all interfaces, check this box.<br>This check box is disabled by default. |
| Redirected Address | Type the IP address to which traffic is redirected |
| Redirected Port | Type the port to which traffic is redirected.<br>Providing a specific port number for the redirected service is required only if you want to redirect services to a port other than the one which is usually used by the service. If you do not provide a port number, the default port for that service is used. |
| Caption | Type a brief description of the redirected service. |

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the Redirected Services window, click **Apply**.

9 On the Selection menu, select **Activate**.
The service redirect is now configured for use.

## Adding a rule to support service redirection

As a final step, you need to add a rule in support of the redirection operation. All connections using service redirection are subject to the security gateway's authorization rules.

### To create a network entity to represent the redirected service

1 In the SESA Console, on the Configurations view tab, in the left pane, click on the location settings in which the service is configured.

2 In the right pane, on the Network Entities tab, click **New Network Entity > Host Network Entity**.

3 Click **Properties**.

4 On the General tab, in the Name text box, type the name of the network entity, for example supportdb.

5 In the Address text box, type the IP address of the service which is being redirected.

   For example, 203.34.57.2 (the address of the virtual host never appears in any of the system rules).

6 Click **OK**.

**To create a rule to support redirection**

1 In the SESA Console, on the Configurations view tab, in the left pane, click on the policy in which the service is configured.

2 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

3 On the General tab, in the Arriving through drop-down list, select <ANY>.

4 In the Leaving through drop-down list, you can select <ANY> or you can select another entity, such as the inside interface.

5 In the Source drop-down list, select the Universe entity.

6 In the Destination drop-down list, select the host network entity you just created, supportdb.

7 In the Service Group drop-down list, select a protocol, such as FTP.

8 In the Rules can be written to allow or deny access to services drop-down list, select Allow.

9 Click **OK**.

**Note:** To redirect a custom service, create a service group containing that service and use it in the rule.

## NAT pool addressing

A Network Address Transform (NAT) pool is a set of addresses designated as replacement addresses for client IP addresses. NAT pool addresses can be assigned to tunneled or non-tunneled connections related to individual hosts on entire subnets.

There are two types of NAT pool addresses:

- Static one-to one NAT addressing is used to map a client IP address to a specific NAT pool address.

  The address map is then assigned in advance of the connection and is always the same. You can only use subnet entities with static one-to-one NAT addressing, but you can have subnets which consist of only one entity, if necessary. The mapping must also be one-to-one. In other words, you must have the same number of entities in your real subnet as you do in your NAT subnet.

- Dynamic NAT addressing is used to map a client IP address to an IP address dynamically chosen from a pool of addresses.

  This allocated pool of addresses is dynamically assigned to connecting clients and then available again when the connection ends and the assigned address is no longer in use.

To associate NAT pools with particular tunneled or non-tunneled connections, you must configure an address transform.

See “Configuring address transforms” on page 289.

**Note:** If you are using NAT for address hiding with VPN tunnels, you must pass the VPN traffic through the proxies and have ESP selected in your VPN policy. NAT does not work with VPN tunnels when AH is selected.

A NAT pool allows the reuse of routable address classes by translating nonroutable address schemes into unique routable address schemes. You can create both static and dynamic NAT pools.

For more information on address transforms through the system, refer to the *Symantec Security Gateways Reference Guide.*

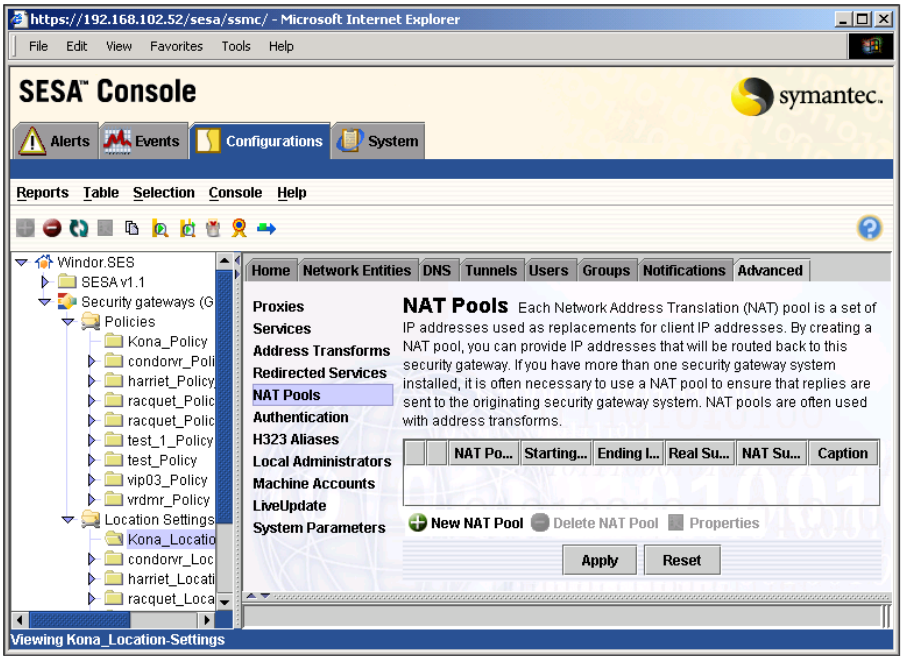
## Configuring static NAT pools

If you are using a protocol that includes the IP address as application data, without an application-specific proxy, the IP address cannot be modified using NAT. In this case, you must select Use Original Client Address to correctly route the connection, for example, if you are using a GSP.

### To configure a static NAT pool

1. In the SESA Console, on the Configurations tab, in the left pane, click on the location settings in which you want to make a change.

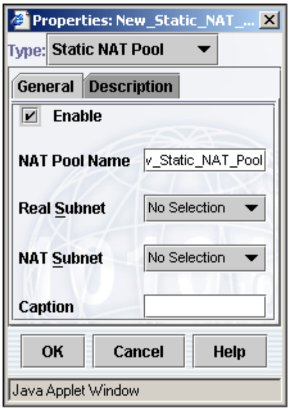
2 In the right pane, on the Advanced tab, click **NAT Pools**.



**NAT Pools** Each Network Address Translation (NAT) pool is a set of IP addresses used as replacements for client IP addresses. By creating a NAT pool, you can provide IP addresses that will be routed back to this security gateway. If you have more than one security gateway system installed, it is often necessary to use a NAT pool to ensure that replies are sent to the originating security gateway system. NAT pools are often used with address transforms.

3 Click **New NAT Pool > Static NAT Pool**.

4 Click **Properties**.



Type: Static NAT Pool

☑ Enable

NAT Pool Name v_Static_NAT_Pool

Real Subnet No Selection

NAT Subnet No Selection

Caption

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable NAT pools, check **Enable**. traffic on all interfaces, check this box.<br>This feature is enable by default. |
| NAT Pool Name | Type type a name for the NAT pool. |
| Real Subnet | In the Real Subnet drop-down list, select the subnet entity that is the real subnet source or destination of the connection. |
| NAT Subnet | In the NAT Subnet drop-down list, select the subnet entity that appears to be the source or destination of the connection.<br>If necessary, create a new subnet entity to serve this purpose. See Chapter 2, Understanding Security Gateway Concepts in the *Symantec Enterprise Firewall Administrator's Guide*. |
| Caption | In the Caption text box, type a brief description of the NAT pool. |

6 On the Description tab, you can add a more detailed description of the NAT pool.

7 Click **OK**.

8 In the NAT Pools window, click **Apply**.

9 On the Selection menu, select **Activate**.
The static NAT pool is now configured for use.

## Configuring dynamic NAT pools

If you are using a protocol or application that requires the client's original IP address in the payload, you must select Use Original Client Address to correctly route the connection.

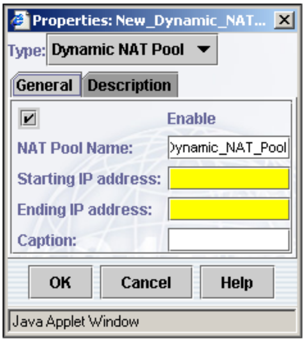
### To configure a dynamic NAT pool

1 In the SESA Console, on the Configurations tab, in the left pane, click on the location settings in which you want to make a change.

2 In the right pane, on the Advanced tab, click **NAT Pools**.

3 Click **New NAT Pool > Dynamic NAT Pool**.

4 Click **Properties**.



Type: Dynamic NAT Pool

☑ Enable

NAT Pool Name: )ynamic_NAT_Pool

Starting IP address:

Ending IP address:

Caption:

5 On the General tab, do the following:

Enable

To enable NAT pools, check **Enable**. traffic on all interfaces, check this box.

This feature is enable by default.

NAT Pool Name

Type type a name for the NAT pool.

Starting IP address

In the Starting IP address text box, type the start address of the NAT pool address range.

We suggest that you use a range of addresses reserved in RFC 1918. The addresses specified in RFC 1918 are as follows (these ranges are inclusive):

- 10.0.0.0 through 10.255.255.255
- 172.16.0.0 through 172.31.255.255
- 192.168.0.0 through 192.168.255.255

These are not Internet routable addresses. You must configure your router to route these addresses to your host security gateway.

When allocating an entire network of addresses for a NAT pool, exclude all 0s and 1s in subnet broadcast addresses. For example, allocate 192.168.1.1 through 192.168.1.254 for a range and not 192.168.1.0 through 192.168.1.255.

Do not create an address pool using your existing network or subnet IP addresses. You can, however, create an address pool using a subset of real network addresses. This subset should consist of an unassigned range of addresses on the internal network that is directly attached to the security gateway system. An external client's address can be translated to one of the addresses in the pool. When the connection is terminated, the address goes back into the pool.

Ending IP address

In the Ending IP address text box, type the ending address of the NAT pool address range. The same recommendations for starting addresses apply to ending addresses as well.

Caption

In the Caption text box, type a brief description of the NAT pool.

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 In the NAT Pools window, click **Apply**.

9 On the Selection menu, select **Activate**.
The dynamic NAT pool is now configured for use.

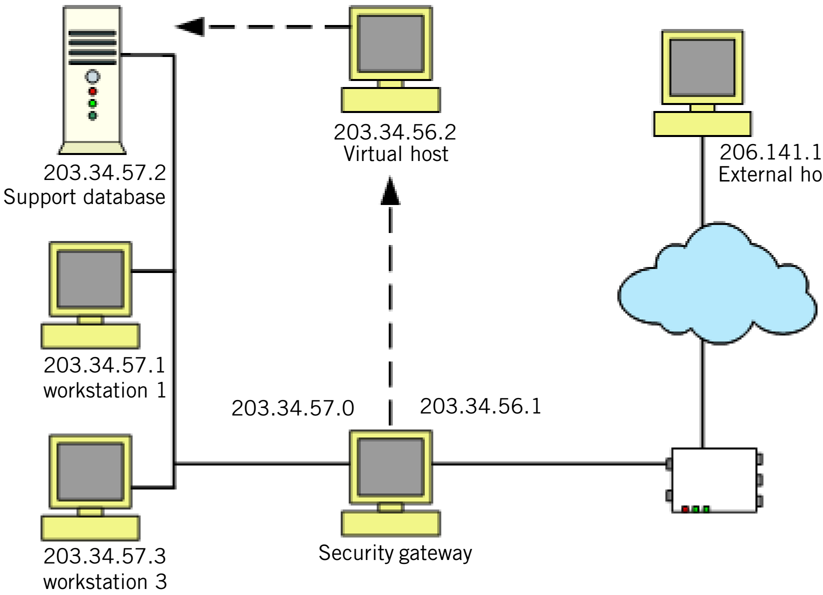
**Note:** If you are using NAT pool addressing with VPN tunnels, you must check the Pass Traffic to Proxies check box on the General tab of the VPN policy you are using. You must also configure address transforms.
See "Configuring address transforms" on page 289.

## Creating virtual clients

You can use NAT pools and address transforms to create virtual clients. A virtual client is used to describe a configuration which uses a virtual address in place of the real address of the host initiating the connection. This is particularly useful if you have a redirected service configured on your network.

In the following figure, the External host only sees the virtual host address (203.34.56.2) when it connects to the Support database. With service redirection configured, the packet is redirected to the Support database (203.34.57.2). If the Support database now initiates a connection back to the External host, the external host expects to see the address of the Virtual host on the incoming packet. However, unless you have a virtual client configuration (in essence, a reverse NAT configuration), the External host will see the security gateway address on any communication it receives back.

Figure 11-2 Virtual client



Creating a virtual client lets you use the address of a virtual host as the source for any connection originating from the Support database.

### To configure virtual clients

Use NAT pools and address transforms to configure virtual clients. Create a static one-to-one NAT pool mapping and then determine the interface the connection is passing through with an address transform.

**Note:** For virtual clients, you must set up the entry as a one-to-one address mapping.

Refer to Figure 11-2 for the following procedures.

#### To configure the NAT pool for the virtual client

1 In the SESA Console, on the Configurations tab, in the left pane, click on the Location Settings in which you want to make a change.

2 In the right pane, on the Advanced tab, click **NAT Pools**.

3 Click **New NAT Pool > Static NAT Pool**, and then click **Properties**.

4 In the Properties window, do the following:

| | |
|---|---|
| Enable | To enable NAT pools, check **Enable**.<br>This feature is enable by default. |
| NAT Pool Name | Type type a name for the NAT pool. |
| Real Subnet | select the real address of the host initiating the connection.<br>In this example, it is the Support database. |
| NAT Subnet | Select the address of the virtual host.<br>This is the address that will be seen on the packet when it reaches its destination. In this example, it is the Virtual host |
| Caption | Type a brief description of the NAT pool. |

5 Click **OK**.

6 On the Selection Menu, click **Activate**.

#### To configure the address transform for the virtual client

1 In the SESA Console, on the Configurations tab, in the left pane, click on the Location Settings in which you want to make a change.

2 In the right pane, on the Advanced tab, click **Address Transforms**.

3 Click **New Address Transform**, and then click **Properties**.

4 In the Properties window, on the General tab, do the following:

| | |
|---|---|
| Enable | To enable the address transform, check **Enable**.<br>This feature is enabled by default. |
| Name | Type a name for the address transform. |
| Caption | Type a brief description of the address transform. |
| Entering | In the Entering drop-down list select the interface through which traffic is to be received from the virtual client.<br>In this example, it is 203.34.56.0 (the inside interface). |
| Source | In the Source drop-down list, select the real network entity initiating the connection.<br>In this example, it is the Support database. |

| | |
|---|---|
| Destination | In the Destination drop-down list, select Universe or the External host entity. |
| Leaving | In the Leaving drop-down list, select the security gateway's outside interface. |

5 On the Source Address Transform tab, click **Use NAT Pool** and select the new NAT pool from the drop-down list.

6 Click **OK**.

7 On the Selection Menu, click **Activate**.

### To configure a rule for the virtual client

1 In the SESA Console, on the Configurations tab, in the left pane, click on the policy in which you want to make the change.

2 In the right pane, on the Rules tab, click **New Rule**, and then click **Properties**.

3 On the General tab, do the following:

| | |
|---|---|
| Rule Name | Type a name for the rule. |
| Enable | To enable the rule, check **Enable**.<br>This feature is enabled by default. |
| Arriving through | Select <ANY> or the Inside interface. |
| Source | In the Source drop-down list, select Support database. |
| Destination | In the Destination drop-down list, select the External host. |
| Leaving through | In the Leaving through drop-down list, select <ANY> or the Outside interface. |
| Service group | In the Service group drop-down list, select the service group. |

4 Click **OK**.

5 On the Selection Menu, click **Activate**.

# Configuring antivirus component server settings

The security gateway lets you establish scanning and blocking policies for the antivirus component. You can perform antivirus scanning on any traffic using the FTP, HTTP, and SMTP protocols.

Depending on a number of factors, including scan volume, the number of client applications making requests, and available memory and disk space, you may need to impose restrictions on resources to maximize performance and security. Settings that provide maximum security also consume more resources. You can configure settings to restrict the amount of resources that are dedicated to handling certain types of files, adjust the sensitivity of heuristic virus detection, and specify the file types to be scanned.

You can establish a blocking policy to further limit the handling and scanning of certain files. Files that meet the established criteria are blocked immediately, which limits the resources that are expended by the antivirus component server. For example, if the antivirus server is providing scanning services for SMTP traffic, you can establish a mail policy to filter email and email attachments based on a number of attributes. The email policy settings are applied to all MIME-encoded messages and do not affect non-MIME-encoded file types.

You can use some scanning and blocking policy settings during a virus outbreak to further protect your network. Once you have information on the characteristics of a new virus, you can use this information to block the infected attachment or email immediately, before virus definitions for the new virus have been posted. You can also scan all file types rather than limiting the file types that are scanned for viruses for maximum coverage.

**Note:** Antivirus and intrusion detection and prevention are not currently supported for the Symantec Enterprise Firewall, version 8.0.

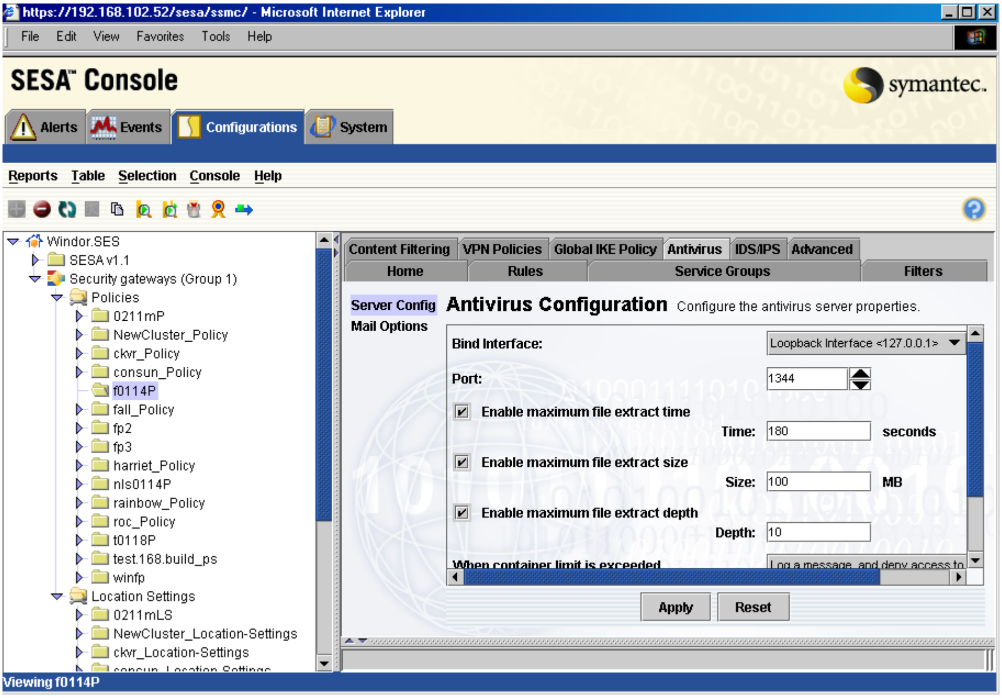
## Antivirus component server settings

In the Antivirus Configuration window, you can configure the general antivirus component settings, including the port and interface over which to scan for viruses, and the maximum file size and maximum extract time.

**To configure antivirus component settings**

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Server Config** and do the following:



**Antivirus Configuration** Configure the antivirus server properties.

Bind Interface: Loopback Interface <127.0.0.1>

Port: 1344

☑ Enable maximum file extract time

Time: 180 seconds

☑ Enable maximum file extract size

Size: 100 MB

☑ Enable maximum file extract depth

Depth: 10

When container limit is exceeded: Log a message, and deny access to

Bind Interface

Select the interface to which to bind.

The choices are all currently configured interfaces and the Loopback interface <127.0.0.1>. The default is Loopback interface

Port

Type the port number you want to use for antivirus scanning.

The default is port 1344.

Enable maximum file extract time

To limit the antivirus scanning by time, check **Enable maximum file extract time**.

This limits the amount of time the scanner spends attempting to extract the top-level container file and its contents by preventing the scanner from going into an endless loop trying to extract a container file. This check box is checked by default.

Time

If you are limiting scanning by time, in the Time text box, type a time value in seconds.

The default is 180 seconds (three minutes). To disable this setting (so that no limit is imposed), type 0.

This setting does not apply to .hqx and .amg files.

Enable maximum file extract size

To limit the antivirus scanning by the size of individual files in a container file, check **Enable maximum file extract size**.

This check box is checked by default.

Size

If you are limiting scanning by size, in the Size text box, type a file size value in MB.

The default is 100 MB. To disable this setting (so that no limit is imposed), type 0.

Enable maximum file extract depth

To limit the antivirus scanning by the number of nested levels of files that are decomposed within a container file, check **Enable maximum file extract depth**.

This check box is checked by default

Depth

If you are limiting scanning by the number of nested levels of files that are decomposed within a container file, in the Depth text box, type a depth value.

The default is 10 levels. To disable this setting (so that no limit is imposed), type 0.

When container limit is exceeded

In the When container limit is exceeded drop-down list, select the action to take when one or more limits are exceeded.

The options are Log a message and deny access to the file or Log a message and allow access to the file. The default is to deny access.

Emails with partial message/content type header

In the Emails with partial message/content type header drop-down list, select whether or not to block email with missing header information.

The antivirus server must have a MIME-encoded message in its entirety to effectively scan it for viruses. Some email applications break large messages into smaller messages for transmission. These messages are typically transmitted separately and reassembled before delivery to the recipient.

The default is to block partial messages because they cannot be effectively scanned.

| | |
|---|---|
| Block files with malformed containers | In the Block files with malformed containers list box, select whether or not to block files with malformed containers.<br>Computer viruses and malicious programs sometimes create intentionally malformed files. These distortions are recognized by the antivirus server. If the antivirus server can identify the container type, in many cases the antivirus server can repair the container file.<br>You can choose to allow access to all malformed containers, block only those for which the container type cannot be identified, or block access to all malformed containers. The default is Only if file is not identified as another container. Access is denied if the container type cannot be determined. |

3 Click **Apply**.

4 On the Selection menu, click **Activate.**
The antivirus server is now configured for use.

# Configuring antivirus mail options

If you have activated antivirus scanning for the SMTP proxy, you can establish a mail policy to filter mail and mail attachments based on a number of attributes. These mail policy settings are applied to all MIME-encoded messages.

Mail policy settings do not affect non-MIME-encoded file types that may be passed to the antivirus server for scanning. When a mail filter policy is in effect, the mail filter settings, including the updating of mail messages to indicate that a virus has been found, are applied only to MIME-encoded messages.

You can add text to the body of MIME-encoded messages to warn recipients that a virus was found in an attachment or that an attachment was deleted because it violated the mail filter policy. The default text indicates that an attachment was infected and repaired, or deleted because it could not be repaired, or that an attachment was deleted due to a mail policy violation. Variables can be used to include the file names of the affected attachments. You can customize the text that is added.

You can use the mail policy settings to impose general restrictions on email. You can also use some mail filters during a virus outbreak to further protect your network. For example, once you have information on the characteristics of a new virus, you can use this information to block the infected attachment or email. You can use the file name or file size option if you know the exact name or size of an infected attachment. This lets you protect your network immediately, before virus definitions for the new virus have been posted.

You can filter mail based on the following criteria:

| | |
|---|---|
| Maximum message size | Specify a maximum size for messages so that messages that exceed the maximum are rejected. |
| Malformed messages | Specify blocking of malformed messages so that messages that may have been intentionally malformed by viruses or malicious programs are rejected. |
| Message origin | Specify one or more domains or complete email addresses that are known threats so that messages from those domains or addresses are rejected. |
| Subject line | Specify one or more subject lines that are known threats so that messages with those subject lines are rejected. |
| Attachment names | Specify one or more file names that are known threats, and select whether messages that contain attachments with these file names should be rejected or delivered with the attachment removed. |
| Attachment sizes | Specify files sizes of attachments, and select whether messages that contain attachments of the specified size should be rejected or delivered with the attachment removed. |

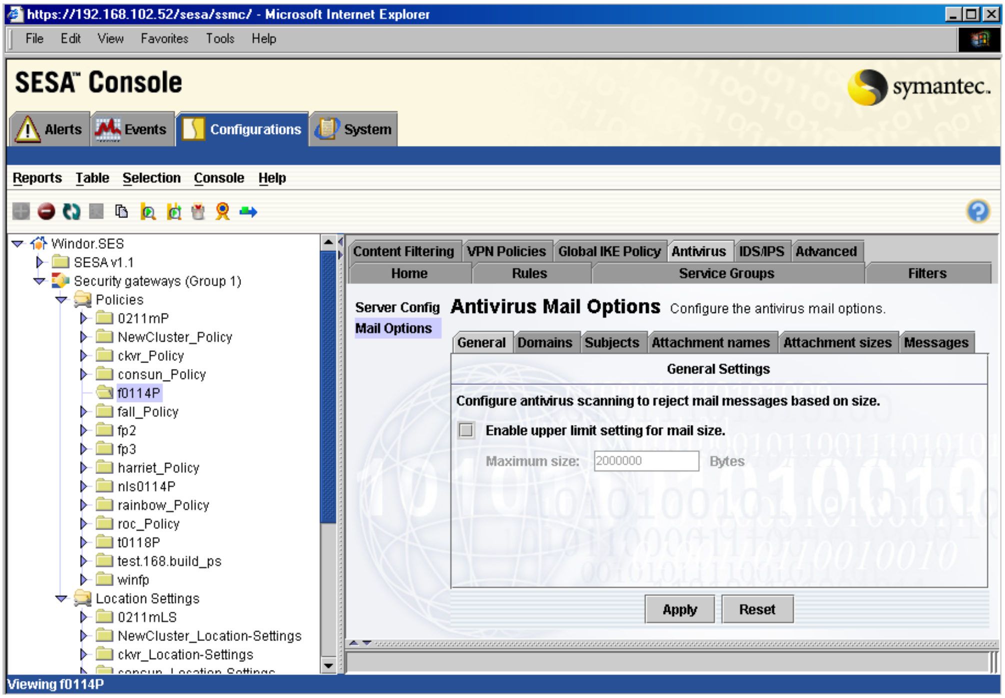
## Filtering mail based on file size

You can filter mail based on the file size by specifying a maximum size for messages. Messages that exceed the maximum size are rejected.

### To filter mail based on file size

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Mail Options**.



**Antivirus Mail Options** Configure the antivirus mail options.

General Settings

Configure antivirus scanning to reject mail messages based on size.

□ Enable upper limit setting for mail size.

Maximum size: 2000000 Bytes

3 On the General tab, to allow antivirus scanning to reject mail messages based on size, check **Enable upper limit setting for mail size**.

This check box is unchecked by default.

4 If you are limiting the size of scanned files, in the Maximum size text box, type the maximum size (in bytes) that the antivirus server will accept.

The default is 2000000 (2 MB). To disable this setting (so that no limit is imposed), type 0.

5 Click **Apply**.

6 On the Selection menu, click **Activate.**

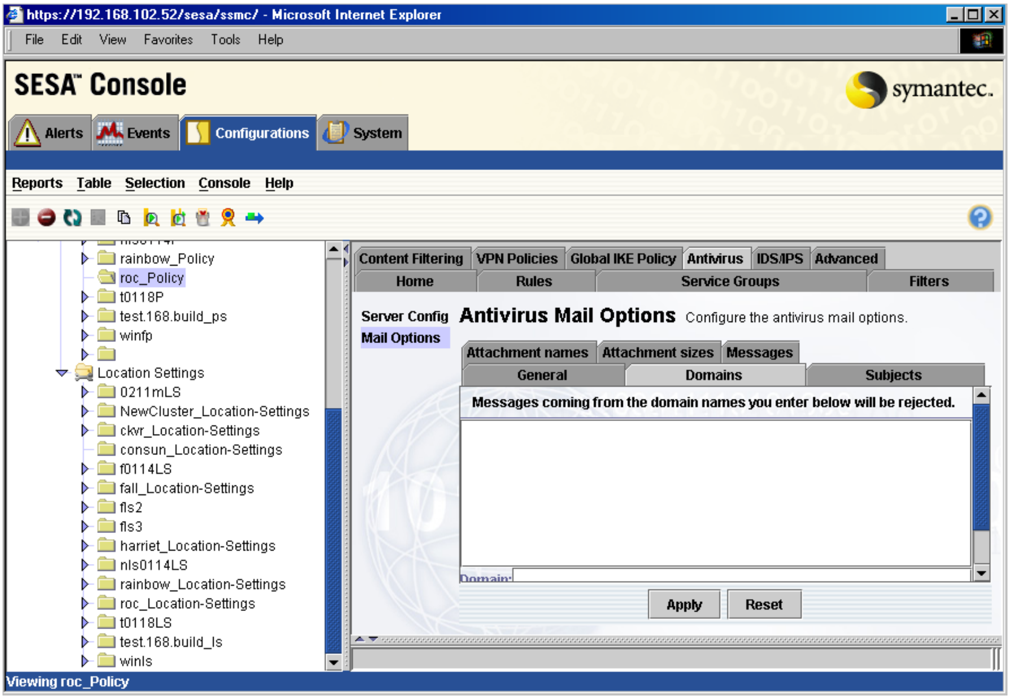
The antivirus server is now configured to limit the scanning of large files.

## Filtering mail based on address

You can filter mail based on the source address by specifying one or more domains or complete email addresses that are known to be threats so that messages from those domains or addresses are rejected.

### To filter email based on address

1. In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.
2. In the right pane, on the Antivirus tab, click **Mail Options**.



Antivirus Mail Options Configure the antivirus mail options.

Messages coming from the domain names you enter below will be rejected.

3. On the Domains tab, in the Domain text box, type a domain or email address to block, and then click **Add**.

   Type as many domains or addresses to block as needed. Search strings are not case-sensitive. Use the following characters as needed:

   - A question mark (?) as a wildcard to represent a single character.
   - An asterisk (*) as a wildcard to represent zero or more characters.
   - A backslash (\) as an escape character. For example precede ? or * with \ to match a literal ? or * in a file name. To match a literal character, use \\.

   Non-English characters (such as accent marks or umlauts) are not supported.
4. To remove a domain name from the list, select it and then click **Delete**.
5. To edit a domain name in the list, select it and then click **Modify**.

6 Click **Apply** to save the configuration.

7 On the Selection menu, click **Activate.**
The antivirus server is now configured to block email addresses.

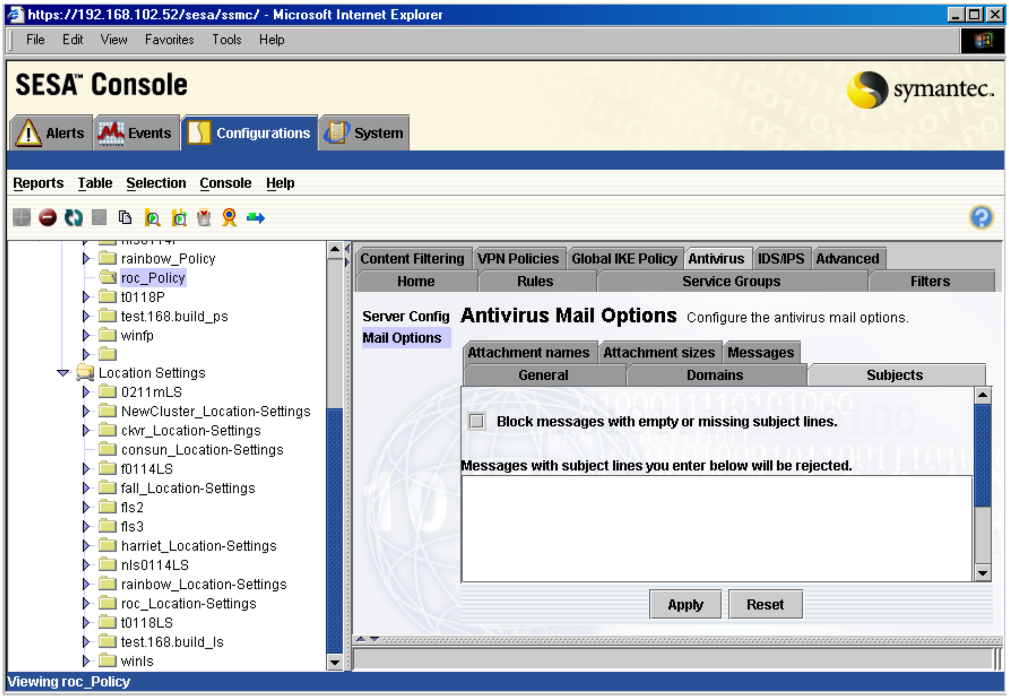
## Filtering mail based on subject line

You can filter mail based on the subject line by specifying one or more subject lines that are known to be threats so that messages with those subject lines are rejected.

### To filter mail based on subject lines

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Mail Options**.



**Antivirus Mail Options** Configure the antivirus mail options.

□ Block messages with empty or missing subject lines.

Messages with subject lines you enter below will be rejected.

3 On the Subjects tab, in the Subject text box, type a text string to block, and then click **Add**.
Type as many subject lines to block as needed. Search strings are not case-sensitive. Use the following characters as needed:

- A question mark (?) as a wildcard to represent a single character.
- An asterisk (*) as a wildcard to represent zero or more characters.
- A backslash (\) as an escape character. For example precede ? or * with \ to match a literal ? or * in a file name. To match a literal character, use \\.

Non-English characters (such as accent marks or umlauts) are not supported.

4. To remove a subject line from the list, select it and click **Delete**.
5. To edit a subject line in the list, select it and click **Modify**.
6. To block mail messages that have blank subject lines, check **Block messages with empty or missing subject lines**.
7. Click **Apply**.
8. On the Selection menu, click **Activate.**
   The antivirus server is now configured to block mail messages based on subject line.

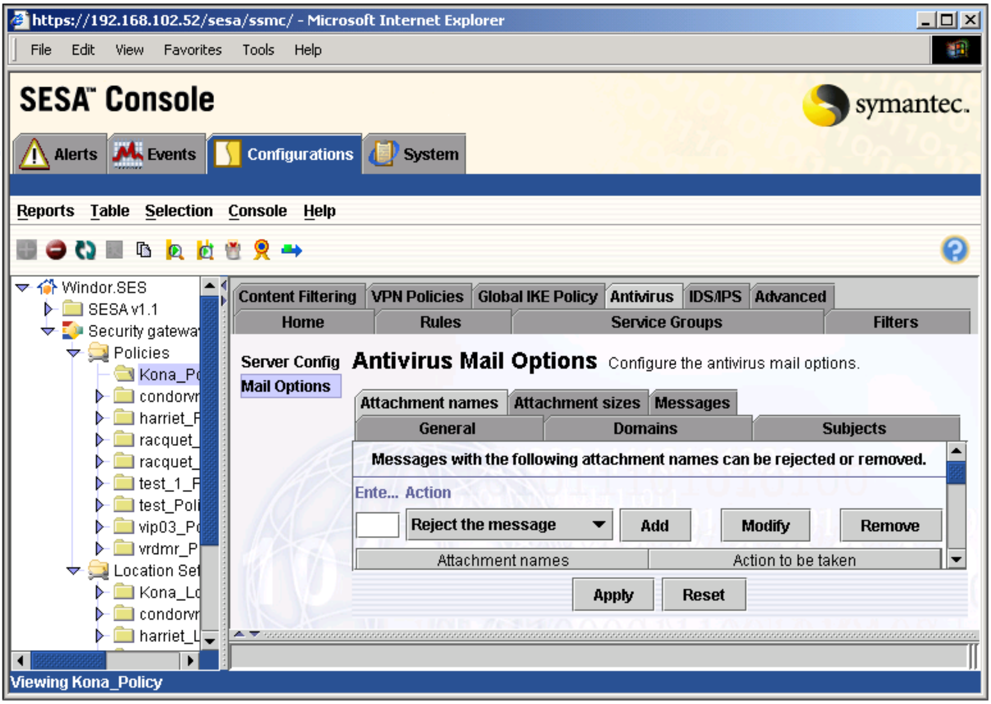
## Filtering mail based on attachment names

You can filter mail based on the attachment names by specifying one or more file names that are known threats, and select whether these file names should be rejected or delivered with the attachment removed.

**To filter email based on attachment names**

1. In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Mail Options**.



Antivirus Mail Options Configure the antivirus mail options.

Messages with the following attachment names can be rejected or removed.

Action: Reject the message

3 On the Attachment names tab, in the Enter file name text box, type the name of the attachment or a search string for the file you want to block. Search strings are not case-sensitive. Wildcards can be used as follows:

- A question mark (?) represents a single character.
- An asterisk (*) represents zero or more characters.
- A backslash (\) represents an escape character. For example, precede ? or * with \ to match a literal ? or * in a file name. To match a literal \, use \\.

Non-English characters (such as accent marks or umlauts) are not supported.

4 In the Action drop-down list, select the appropriate response to the mailed attachment.
The selections are:

| | |
|---|---|
| Remove the attachment | The antivirus component server removes any attachments with a specified file name and delivers the remainder of the message, including attachments with names that do not match a specified file name. The mail message is not updated to indicate that an attachment has been deleted due to a mail policy violation unless you activate the mail message update feature.<br>See "Customizing the virus detection message" on page 323. |
| Reject the message | The antivirus component server rejects any message that contains an attachment with a specified file name. |

The default is Reject the message.

5 To add the Enter file name/Action pair to the table below, click **Add**.

6 To edit or remove an entry from the table, highlight it, and then click **Modify** or **Remove**.

7 Click **Apply**.

8 On the Selection menu, click **Activate.**
The antivirus component server is now configured to block email based on attachment names.

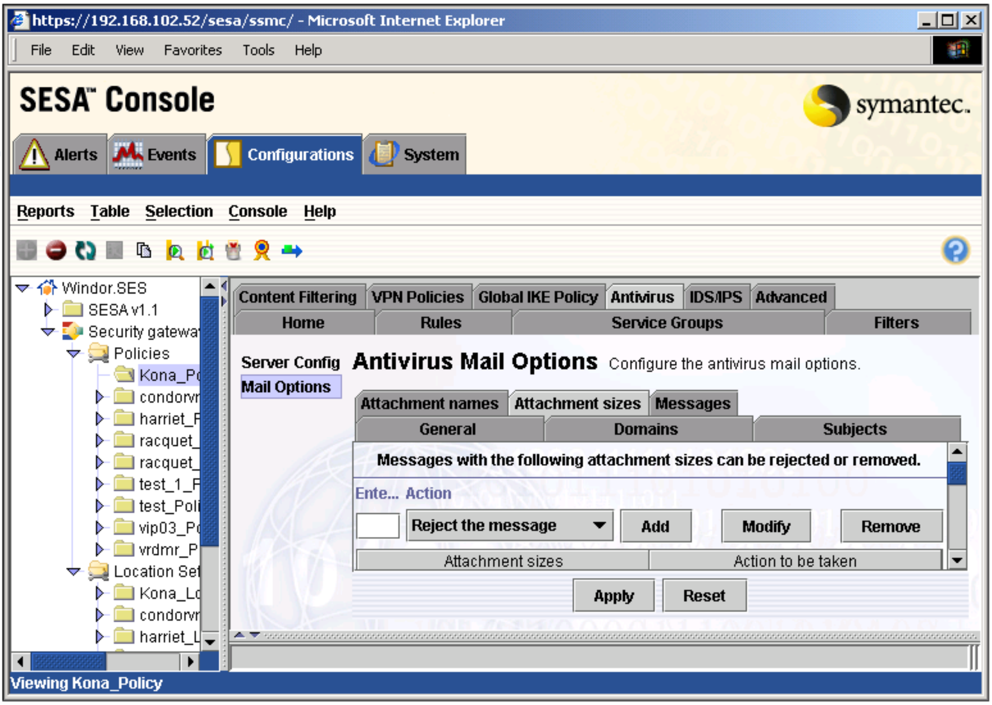
## Filtering mail based on attachment sizes

You can filter mail based on the attachment file size by specifying the file size of attachments and selecting whether messages that contain attachments of the specified size should be rejected or delivered with the attachment removed.

### To filter email based on attachment sizes

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Mail Options**.



https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer

Antivirus Mail Options Configure the antivirus mail options.

Messages with the following attachment sizes can be rejected or removed.

Ente... Action: Reject the message

Viewing Kona_Policy

3 On the Attachment sizes tab, in the Enter file size in bytes text box, type the maximum attached file size you permit.

There is no default value. To disable this setting (so that no limit is imposed), type **0**.

4 In the Action drop-down list, select the appropriate response to the mailed attachment.

The selections are:

| | |
|---|---|
| Remove the attachment | The antivirus component server deletes any attachments of a specified size and delivers the remainder of the message, including attachments that do not match a specified size. The mail message is not updated to indicate that an attachment has been deleted due to a mail policy violation unless you activate the mail message update feature.<br>See "Customizing the virus detection message" on page 323. |
| Reject the message | The antivirus component server rejects any message that contains an attachment of a specified size. |

The default is Reject the message.

5 To add the Enter file size/Action pair to the table below, click **Add**.

6 To edit or remove an entry from the table, highlight it and click **Modify** or **Remove**.

7 Click **Apply**.

8 On the Selection menu, click **Activate.**
The antivirus component server is now configured to restrict email based on file size.

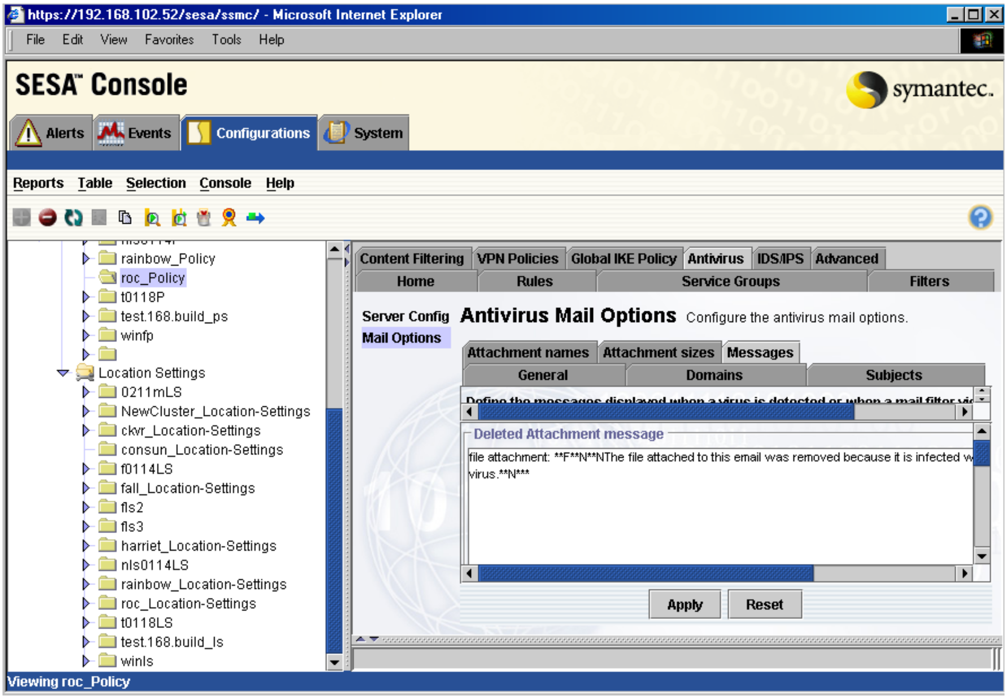
## Customizing the virus detection message

You can customize the message displayed when a virus is detected. There are two default messages; one is displayed when the infected file was deleted, the other is displayed when the infected file was repaired.

### To customize the virus detection message

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the Antivirus tab, click **Mail Options**.



file attachment: **F**N**NThe file attached to this email was removed because it is infected w
virus.**N***

3 On the Messages tab, to customize the message displayed when a virus is detected and the attachment deleted, edit the message in the text box.

4 If you want to include an attachment repaired message, check **Include Attachment Repair message** and edit the message in the text box.
The two messages are:

Deleted Attachment message

This message is a text file that is attached to an email in place of an infected attachment that must be deleted because it cannot be repaired.

This message is used only when an attachment is removed because it contains a virus. It is not used when the attachment is removed because of a mail policy violation. The antivirus component server attaches the text file to mail messages. The text file that is inserted is called deletedN.txt, where N is a sequence number. For example, if two attachments are deleted, the replacement files are called deleted1.txt and deleted2.txt.

| | |
|---|---|
| Attachment Repair message | This message is added to the body of an email message when an infected attachment is repaired or when an email message violates an established email policy. |

5 To revert back to the original message, click **Restore Default**.

6 Click **Apply**.

7 On the Selection menu, click **Activate.**
The virus detection messages are now configured for use.

# Configuring intrusion detection and intrusion prevention (IDS/IPS)

The Internet exposes e-business resources to significant risks. Damage can include diminished customer confidence, intellectual property loss, legal liability, and time and money to recover from an attack. In addition to the firewall services that provide peripheral protection, the security gateway provides an intrusion detection and prevention component that uses hybrid detection architecture to pinpoint malicious activities, identify intrusions in real time, and respond rapidly to both common and novel attacks.

See “Configuring portmap settings” on page 325.

See “Configuring event gating for specific event types” on page 329.

See “Enabling global event gating” on page 332.

**Note:** Antivirus and intrusion detection and prevention are not currently supported for the Symantec Enterprise Firewall, version 8.0.

## Configuring portmap settings

The Portmap window contains a list of IDS statemaps used to map ports to state machines for protocol analysis. The protocols listed in this window are used in rules to indicate whether a proxy or GSP should listen on that port.

**Table 11-1** IDS services

| IDS service | Name | Protocols |
|---|---|---|
| BADSVC | Bad Services | echo_tcp, discard_tcp, daytime_tcp, chargen_tcp |
| BGP | Border Gateway Protocol | bgp |

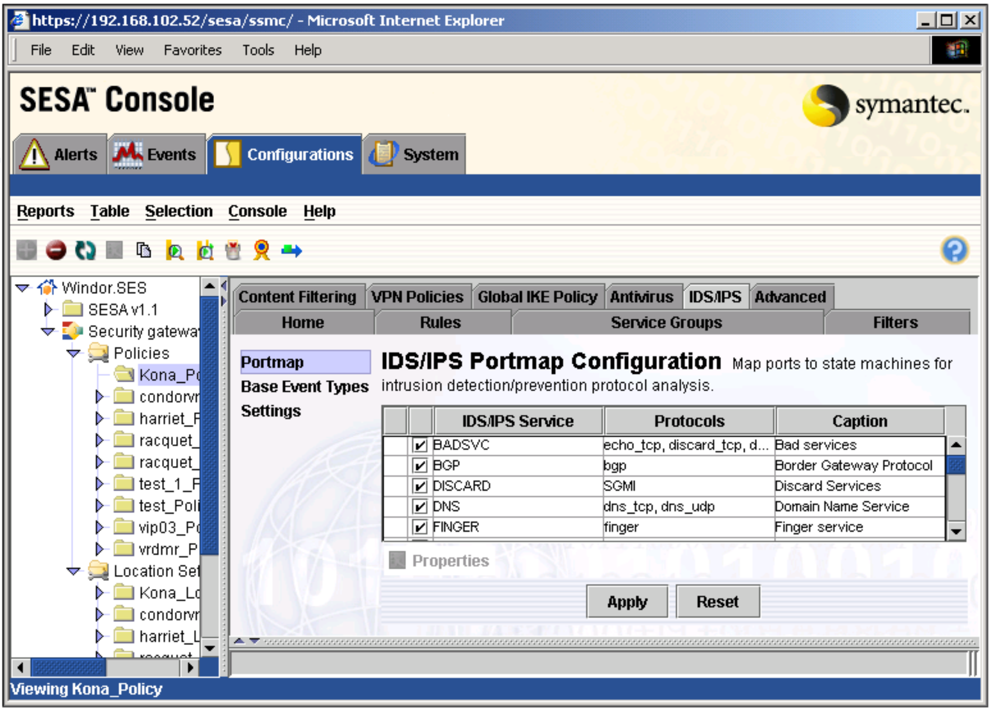
**Table 11-1** IDS services (Continued)

| IDS service | Name | Protocols |
|---|---|---|
| DISCARD | Discard Services | SGMI |
| DNS | Domain Name Service | dns_tcp, dns_udp |
| FINGER | Finger Service | finger |
| FTP | File Transfer Protocol | ftp |
| HSRP | Hot Standby Route Protocol | hsrp |
| HTTP | HyperText Transfer Protocol | http |
| IDENT | IDENT User Identification Protocol | auth |
| IMAP | Internal Mail Access Protocol | imap |
| IRC | Internet Relay Chat | irc_6665, irc_6666, irc_6667, irc_6668, irc_6669, irc_7000 |
| LDAP | Lightweight Directory Access Protocol | ldap |
| NBT | NetBIOS | netbios_139_tcp |
| NNTP | Network News Transfer Protocol | nntp |
| POP3 | Post Office Protocol | pop-3 |
| RLOGIN | Remote Login Services | login |
| RPC | Remote Procedure Calls | sunrpc_tcp, sunrpc_udp |
| RSH | Remote Shell Services | shell |
| SMB | System Message Block | smb |
| SMTP | Simple Mail Transfer Protocol | smtp |
| SNMP | Simple Network Management Protocol | snmp, snmptrap |
| SOCKS | SOCKS Proxy Protocol | socks |
| TELNET | Telnet | telnet |

### To configure intrusion detection and prevention portmap settings

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the IDS/IPS tab, click **Portmap**.

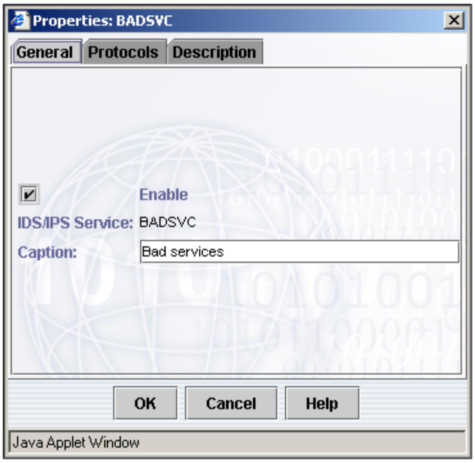


**IDS/IPS Portmap Configuration** Map ports to state machines for intrusion detection/prevention protocol analysis.

| | | IDS/IPS Service | Protocols | Caption |
|---|---|---|---|---|
| | ☑ | BADSVC | echo_tcp, discard_tcp, d... | Bad services |
| | ☑ | BGP | bgp | Border Gateway Protocol |
| | ☑ | DISCARD | SGMI | Discard Services |
| | ☑ | DNS | dns_tcp, dns_udp | Domain Name Service |
| | ☑ | FINGER | finger | Finger service |

Viewing Kona_Policy

3 In the intrusion detection portmap configuration table, right-click on the entry you want to configure, and then click **Properties**.



Properties: BADSVC

☑ Enable

IDS/IPS Service: BADSVC

Caption: Bad services

4 In the Properties window, on the General tab, to enable this IDS service, check **Enable**.

This check box is enabled by default.

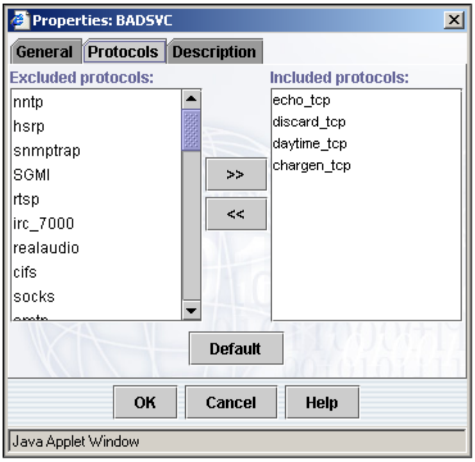
5 In the IDS/IPS service text box, the IDS/IPS service is listed.

This is a read-only field.

Table 11-1 lists the available intrusion detection and prevention services and the protocols they include.

6 In the Caption text box, type a brief description of the IDS/IPS service.

7 On the Protocols tab, select protocols in the Excluded protocols list box and click the right-arrow >> button to move them to the Included protocols list box.



Excluded protocols:
nntp
hsrp
snmptrap
SGMI
rtsp
irc_7000
realaudio
cifs
socks
smtp

Included protocols:
echo_tcp
discard_tcp
daytime_tcp
chargen_tcp

You must enable protocols in the Network Protocols window to appear in the Excluded protocols list. See the *Symantec Enterprise Firewall Administrator's Guide*.

8 To remove a protocol from the IDS/IPS service group, select it in the Included protocols list box and click the left arrow << button to move it to the Excluded protocols list box.

9 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

10 Click **OK**.

## Configuring event gating for specific event types

You can configure the gating and filtering of IDS/IPS events using the Base Event Types window. You need to configure your Symantec security gateway to gate some IDS event types. By default, many base event types are enabled, but they are not gated. By gating a specific base event type, you are configuring the firewall to drop any traffic that matches that event type. Some event types are recommended to be gated in the default configuration and have the Gated box enabled in the GUI. This alone does not gate the signature; you must also enable Global Gating for any event type that is to be gated.

The base event types are listed in a tree with associated check boxes. The check box state indicates if a base event is filtered or not. Another check box indicates whether gating is turned on for the base event type.

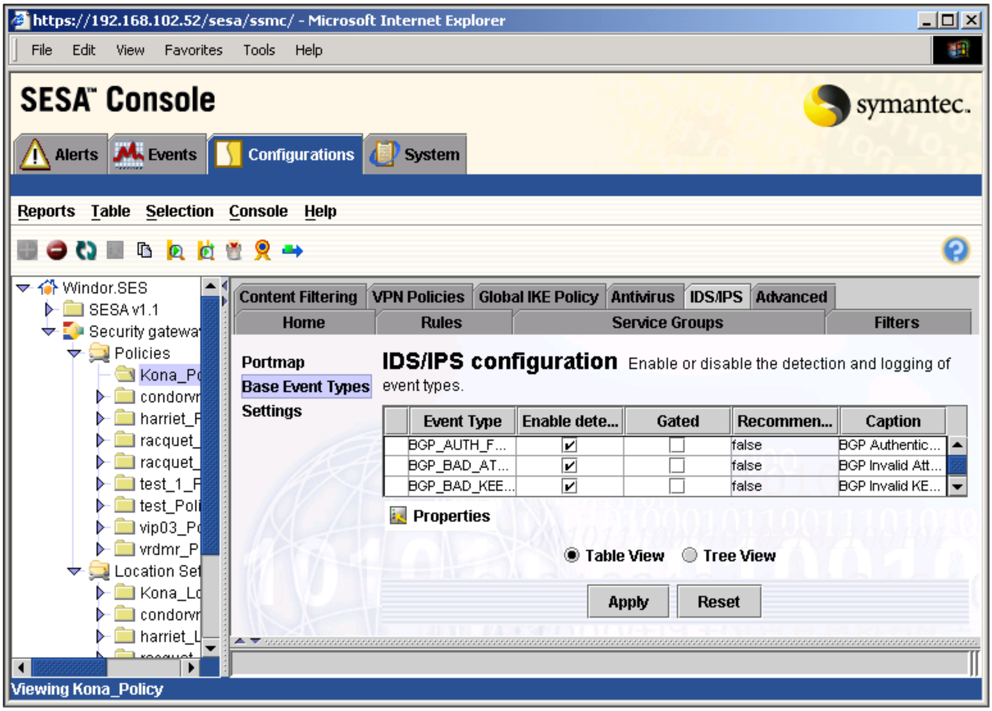
The base events are divided into the following categories:

- Suspicious activity
  Including violations of network protocols.
- Probes
  Includes Finger, SMTP, DNS, and Portsweep probes.
- Custom rules
- Intrusion attempts
  Including exploit and overflow attacks.
- Operational events
- Denial of service
  Includes malformed data and flood attacks.
- Deception events

**To gate specific event types**

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the IDS/IPS tab, click **Base Event Types**.



https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
SESA™ Console
symantec.
Alerts Events Configurations System
Reports Table Selection Console Help
Windor.SES
SESA v1.1
Security gatewa
Policies
Kona_Po
condorvr
harriet_F
racquet_
racquet_
test_1_F
test_Poli
vip03_Po
vrdmr_P
Location Set
Kona_Lo
condorvr
harriet_L
racquet
Content Filtering VPN Policies Global IKE Policy Antivirus IDS/IPS Advanced
Home Rules Service Groups Filters
Portmap
Base Event Types
Settings
Properties
Apply Reset
Viewing Kona_Policy

**IDS/IPS configuration** Enable or disable the detection and logging of event types.

| | Event Type | Enable dete... | Gated | Recommen... | Caption |
|---|---|---|---|---|---|
| | BGP_AUTH_F... | ☑ | □ | false | BGP Authentic... |
| | BGP_BAD_AT... | ☑ | □ | false | BGP Invalid Att... |
| | BGP_BAD_KEE... | ☑ | □ | false | BGP Invalid KE... |

● Table View ○ Tree View

In the Base Event Types window, you can enable the gating and reporting of many different base event types by clicking check boxes in the directory structure.

The check box state indicates whether a base event type is enabled or not. If an event type is disabled, events of that type are not reported even if detected. Another check box indicates whether gating is turned on for that base event type.

If the top-level event is checked, all events in that branch are checked. However, an unchecked top-level event indicates only that all events are not checked. It does not mean that all events are unchecked.

You can also right-click any event type to open a dialog box in which you can change the filtering and gating attributes of that base event type. Some dialog boxes contain further information on the base event type and how to deal with it. You can also open the dialog box by selecting the base event type and clicking **Properties**.

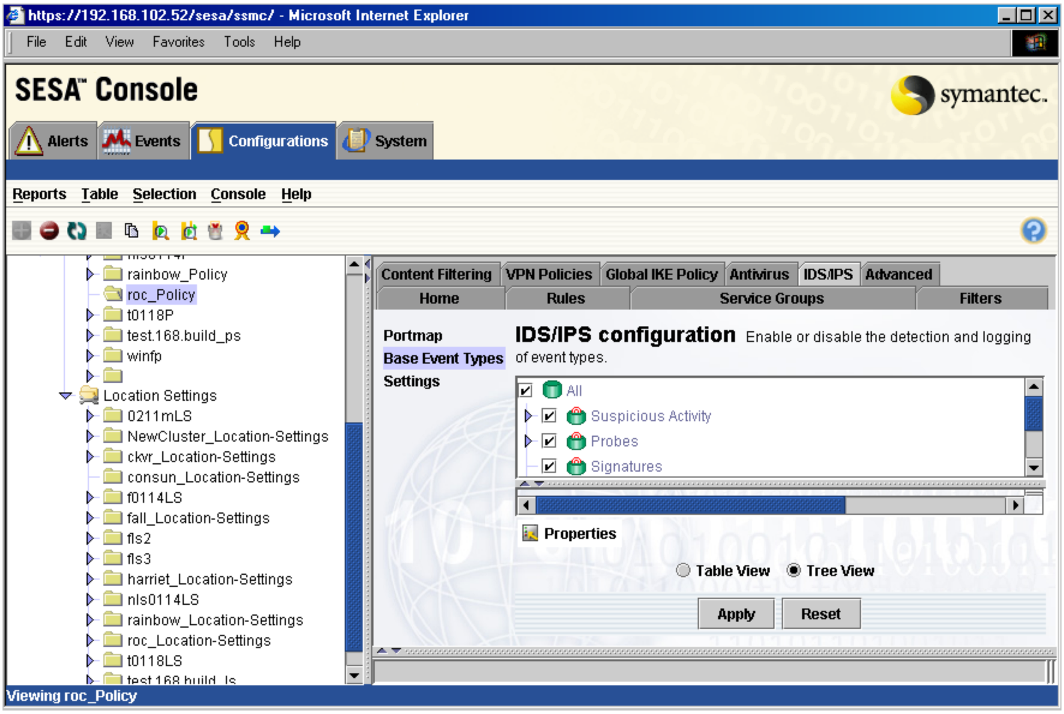
3 Select the event type for which you want to configure the gating option and click Properties.

4 In the Properties window, check Drop traffic if anomaly is detected (Gated) and click OK.

5 Repeat steps 3-5 for each event type for which you want to change the Gated setting.

6 Click Apply.

7 On the Action menu, click **Activate** Changes.
The Base Event Types table refreshes itself every 30 seconds.
To view the base events in a tree structure, click **Tree View**.



IDS/IPS configuration Enable or disable the detection and logging of event types.

☑ All
☑ Suspicious Activity
☑ Probes
☑ Signatures

○ Table View ● Tree View

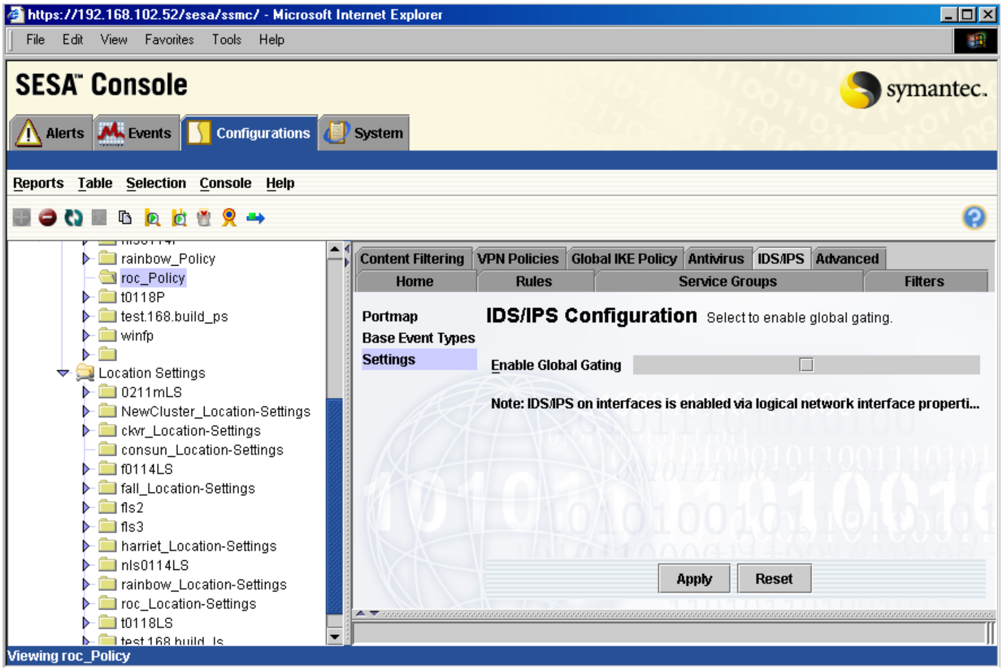
## Enabling global event gating

The IDS/IPS Settings window lets you enable gating for all IDS/IPS event types. To enable gating on a per-interface basis, use the Logical Network Interfaces window. See the *Symantec Enterprise Firewall Administrator's Guide.*

### To enable global event gating

1 In the SESA Console, on the Configurations tab, in the left pane, click the policy in which you want to make a change.

2 In the right pane, on the IDS/IPS tab, click **Settings**.



IDS/IPS Configuration Select to enable global gating.

Enable Global Gating □

Note: IDS/IPS on interfaces is enabled via logical network interface properti...

3 To enable global gating, check **Enable Global Gating**.

4 Click **Apply.**

5 On the Selection menu, click **Activate**.

Section 3

# Monitoring security gateway performance

This section includes the following topics:

Chapter 12

# Managing SESA logging

This chapter includes the following topics:

## About managing SESA logging

This chapter describes how to manage security gateway logging to SESA. The level of control you have depends on the types of Symantec security gateways being managed and the SESA integration product you purchased.

The descriptions and procedures in this chapter apply to managing local security gateway logging functions from within the SESA Console. A section at the end of this chapter summarizes the features and utilities that are available to manage log files within the SESA DataStore itself.

If you are new to managing Symantec security gateways from SESA, familiarize yourself with the logging mechanisms used by different Symantec security gateways. Understanding these differences is key in developing a strategy for successfully managing security gateway logging to SESA.

# Understanding how security gateways log events to SESA

Symantec security gateways such as Symantec Gateway Security 5400 Series appliances and Symantec Enterprise Firewall v8.0, and Symantec legacy products use different processes to report events to SESA:

- When a Symantec Gateway Security 5400 Series appliance or Symantec Enterprise Firewall v8.0 joins SESA, a SESA Agent is downloaded to the security gateway and activated. This SESA Agent formats event messages, making them acceptable to SESA, and then forwards the events to the SESA Manager.
- Legacy products (such as Symantec Gateways Security v1.0 appliances, Symantec Enterprise Firewall v7.0, and VelociRaptor v1.5) use an intermediate log server to collect events. You install the SESA Agent on the log server. It then formats messages that are sent to the log server, making them acceptable to SESA, and forwards the events to the SESA Manager.

# Security gateway monitoring and logging features

Once security gateways are integrated with SESA, the type of control you have to monitor and adjust how security gateways log to SESA depends on the type of security gateway being managed and the SESA integration product you purchased.

Table 12-1 describes each Symantec security gateway and the monitoring/ logging features to which you have access.

**Table 12-1** Monitoring/logging features for security gateways

| For this security gateway... | Can I view security gateway events from SESA? | Can I configure SESA logging services? | Can I customize event reporting? |
|---|---|---|---|
| Symantec Gateway Security 5400 Series appliance v2.0 or Symantec Enterprise Firewall v8.0<br>(with Symantec Advanced and Event Manager (Group 1 v2.0.1) installed) | Yes | Yes | Yes |

Table 12-1 Monitoring/logging features for security gateways (Continued)

| For this security gateway... | Can I view security gateway events from SESA? | Can I configure SESA logging services? | Can I customize event reporting? |
|---|---|---|---|
| Symantec Gateway Security 5400 Series appliance v2.0 or Symantec Enterprise Firewall v8.0<br>(with Symantec Event Manager (Group 1 v2.0.1) only installed) | Yes | No | Yes[1] |
| Legacy products (such as Symantec Gateways Security v1.0 appliances, Symantec Enterprise Firewall v7.0, and VelociRaptor v1. | Yes | No | Yes[2] |

[1] Customize event logging using the event gating feature which is accessible from the Security Gateway Management Interface (SGMI).

[2] Customize event logging by editing the DE_FirstPass.rule file. See “Modifying DE_FirstPass.rule (optional)” on page 435.

# Optimizing SESA event logging

This section describes how to modify the SESA Agent and SESA Manager’s configuration to ensure the best possible logging performance for Symantec security gateways.

## Customizing the SESA Agent's configuration

Use the Configurations view tab of the SESA Console to change SESA agent parameters, on the log server, to the settings described below.

**Table 12-2** Recommended SESA Agent settings

| Parameter | Default Settings | Suggested setting | Description |
|---|---|---|---|
| Maximum queue size | 2000 KB | 9999 KB | When an application's queue reaches this size, any future log requests are refused. |
| App flush size<br>App flush count<br>App flush time | 50 KB<br>35<br>30 seconds | 999 KB<br>1000<br>10 seconds | Agent outbound data is sent to the SESA Manager whenever one of the three triggers is tripped.<br>**Note:** This only applies to batch events; direct events are always sent as soon as possible. |
| App spool size | 100 KB | 1000 KB | Size in kilobytes of the Event Collector queue that the SESA Agent holds in memory when not able to send the normal queue to the SESA Manager. If the queue exceeds this size, and it still needs to grow, the queue is written to disk. |

**To edit SESA Agent parameters**

1 In the SESA console, on the Configurations view tab, in the left pane, expand the SESA folder.

2 Expand SESA Agent Configuration.

3 On the Logging tab, change the parameters to the settings described in Table 12-2.

4 When you finish editing the configuration, select one of the following:

| | |
|---|---|
| Apply | Saves your changes and continues editing. |
| Reset | Cancels all of the changes that you have made on all of the tabs and resets the values to those that existed when you started editing. |

5 When you are prompted to distribute the changes, select one of the following:

| | |
|---|---|
| Yes | Immediately informs computers that are associated with the configuration of the changes. The computers receive a message that a new configuration is waiting. |
| No | Informs computers of the changes at a later time, or the computers will pick up changes at the next scheduled configuration update interval. |

When you distribute a configuration, the software of the target systems will retrieve their new configuration immediately.

**Note:** For information on all SESA Agent parameters and settings, see the chapter on configuring products in the *Symantec Enterprise Security Architecture Administrators Guide* or the SESA online Help accessible from the SESA Console.

## Customizing the SESA Manager's configuration

To ensure the timely distribution of events, use the Configurations view tab of the SESA Console to change SESA Manager parameters to the settings described below.

**Table 12-3** Recommended SESA Manager settings

| Parameter | Suggested setting | Description |
|---|---|---|
| Throttle server | 0 seconds | Configures the time between successive connections to a SESA Manager from a manager when sending data. If requests are made too frequently, they are rejected until the throttle interval has expired.<br>For best performance, we recommend a setting of zero. |

**Table 12-3** Recommended SESA Manager settings (Continued)

| Parameter | Suggested setting | Description |
|---|---|---|
| Throttle desktop | 0 seconds | Configures the time between successive connections to a SESA Manager from a client when sending data. If requests are made too frequently, they will be rejected until the throttle interval has expired. This results in the generation of a hyperactive client event.<br>For best performance, we recommend a setting of zero. |

### To edit SESA Manager parameters

1 In the SESA Console, on the Configurations view tab, in the left pane, expand the SESA folder.

2 Expand SESA Manager Configuration.

3 On the Throttle tab, change the parameters to the settings described in Table 12-3.

4 When you finish editing the configuration, select one of the following:

| | |
|---|---|
| Apply | Saves your changes and continue editing. |
| Reset | Cancels all of the changes that you have made on all of the tabs and resets the values to those that existed when you started editing. |

5 When you are prompted to distribute the changes, select one of the following:

| | |
|---|---|
| Yes | Immediately informs computers that are associated with the configuration of the changes. The computers receive a message that a new configuration is waiting. |
| No | Informs computers of the changes at a later time, or the computers will pick up changes at the next scheduled configuration update interval. |

When you distribute a configuration, the software of the target systems retrieves their new configuration immediately.

**Note:** For information on all SESA Manager parameters and settings, see the chapter on configuring products in the *Symantec Enterprise Security Architecture Administrators Guide*

# Customizing event reporting

When installed in its default configuration, the Symantec Event Manager for Security Gateways (Group 1) v2.0.1 and Symantec Event Manager for Firewall are configured to report a subset of key (non-statistical) security events or log messages to SESA.

To change the definition of events that are reported to SESA, you must edit the configuration of the applicable Symantec Event Manager.

**Note:** Carefully consider your selections when determining the events to send to SESA. Enabling all events or statistical events incurs additional overhead, and may slow system performance.

## Customizing event reporting for security gateways that use Symantec Event Manager (Group 1) v2.0.1

When managing the Symantec Gateway Security 5400 Series appliance v2.0 or Symantec Enterprise Firewall v8.0, you can change the definition of events that are reported to SESA using the event gating feature of the local security gateway. The SESA event gating option appears in the local SGMI because you configure the messages to report to SESA prior to join the security gateway to the SESA environment.

All security gateway log messages have been classified into SESA event classes and subclasses. Additionally, each log message has been tagged with one of three possible values, which include always, sometimes, or never being logged to SESA. Events marked as always being logged to SESA are always logged, regardless of whether or not their associated class or subclass has been selected under the SESA Gating option. Similarly, messages marked as never being logged to SESA are never logged. Messages marked as never being logged to SESA are low-level messages that are only of interest to a local administrator. The SESA Gating option focuses on only those messages that are marked as sometimes being logged to SESA. If selected, they are logged to SESA.

Messages logged to SESA may not always appear identical to what is seen in the local log file. The majority of log messages sent to SESA appear very similar to their local counterparts, but there is some minor variations from time to time.

---

**Note:** If you join a security gateway to SESA, the default configuration sends only a small subset of events to SESA. Turning on all events incurs additional overhead, and may slow system performance. Carefully consider your selections when determining the events to send to SESA.

---

A complete listing of security gateway log messages is contained in the *Symantec Security Gateways Reference Guide*.

See the administrator's guide for your security gateway for more information on using the event gating feature.

## Customizing event reporting for Symantec Event Manager for Firewall

When managing legacy products (such as Symantec Gateways Security v1.0 appliances, Symantec Enterprise Firewall v7.0, or VelociRaptor v1.5), you can change the definition of events that are reported to SESA by editing rule definitions in the DE_FirstPass.rule configuration file.

The DE-FirstPass.rule file is installed in the following locations on the computer running the Symantec Event Manager for Firewall:

- In Windows:
  C:\Program Files\Symantec\FWEventManager\
  KnowledgeBase\Firewalls\SEF\
- In Solaris:
  /opt/Symantec/FWEventManager/KnowledgeBase/Firewalls/SEF

See “Modifying DE_FirstPass.rule (optional)” on page 435 for more information.

# Managing log files

This section describes how to manage local security gateway logging functions from within the SESA Console, including:

- Managing log files for security gateways that use Symantec Event Manager (Group 1) v2.0.1

- Managing log files for Symantec Event Manager for Firewall (legacy products)
- Configuring the logging service

If left unchecked, log files can grow very large in size. It is critical that you are aware of the amount of space taken up by both the current log file, and any back up files. Files that grow in size, using up all available space on the disk, cause performance problems.

The logging controls and event management functions that are available in SESA provide a high-level view of the security posture of your environment. As you view current trends or identify areas of concern, conduct further analysis and take remedial action using the monitoring capabilities that are available within the SGMI of the local security gateway.

## Managing log files for security gateways that use Symantec Event Manager (Group 1) v2.0.1

You manage log files and disk space for the Symantec Gateway Security 5400 Series appliance or Symantec Enterprise Firewall v8.0 using the logging service in the Location Settings Advanced Services tab for security gateways that have joined SESA and are under active management. Changes that you make affect operation of the logging service for the selected security gateway.

### Managing disk space for log files

When a log file exceeds 200 Mb, or the amount of disk space available for logging drops below 5 MB, action is taken to increase the amount of space available. The security gateway either switches to a new log file by running changelog (in Windows the old log file is stored in the default location \Raptor\Firewall\Sg\oldlogs; in Linux the old log file is stored in the default location var/log/sg/), or deletes an old log file. The security gateway deletes a log file only if it has not been modified within the last 24 hours. If the security gateway cannot get space for logging by running changelog or deleting an old log file, the system stops.

See “Configuring the logging service” on page 346.

## Managing log files for Symantec Event Manager for Firewall (legacy products)

When managing legacy Symantec security gateways, you choose how to manage log file disk space when installing Symantec Event Manager for Firewall. You can choose to:

- Archive log files
- Save event records dynamically between two active log files (no archiving occurs)

See the chapter on installing Symantec Event Manager for Firewall in the *Symantec Advanced Manager for Security Gateways (Group 1) and Symantec Event Manager for Security Gateways (Group 1) Integration Guide* for instructions. Also refer to the administrator or configuration guide for your particular Symantec security gateway.

## Configuring the logging service

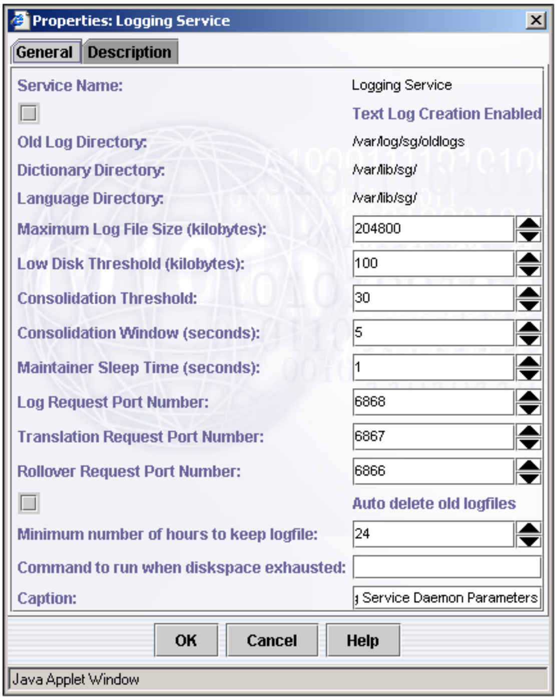
For Symantec Gateway Security 5400 Series appliance or Symantec Enterprise Firewall v8.0, the logging service lets you configure settings that affect how the security gateway collects information on all connections and connection attempts.

Using the Logging Service properties dialog box, you can configure for example, whether the local log files for each managed security gateway are saved in binary (default) or text format. You can also specify the maximum size of the log file and the frequency (in hours) with which it is saved.

### To configure the logging service

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Advanced tab, click **Services**.

3 In the Services table, click **Logging Service**, then click **Properties**.



| | |
|---|---|
| Service Name: | Logging Service |
| □ | Text Log Creation Enabled |
| Old Log Directory: | /var/log/sg/oldlogs |
| Dictionary Directory: | /var/lib/sg/ |
| Language Directory: | /var/lib/sg/ |
| Maximum Log File Size (kilobytes): | 204800 |
| Low Disk Threshold (kilobytes): | 100 |
| Consolidation Threshold: | 30 |
| Consolidation Window (seconds): | 5 |
| Maintainer Sleep Time (seconds): | 1 |
| Log Request Port Number: | 6868 |
| Translation Request Port Number: | 6867 |
| Rollover Request Port Number: | 6866 |
| □ | Auto delete old logfiles |
| Minimum number of hours to keep logfile: | 24 |
| Command to run when diskspace exhausted: | |
| Caption: | ; Service Daemon Parameters |

4 On the General tab, do the following:

| | |
|---|---|
| Service Name | Displays the name of the log service. This is a read-only field. |
| Text Log Creation | Check **Text Log Creation Enabled** field create text logs in addition to binary logs.<br>The logging engine writes log files in binary format, and offers some significant advantages over their text counterparts; identical log messages are now consolidated and the binary log format lets log files be parsed by a translator service and localized.<br>Enabling text logging instructs the security gateway to write out two separate versions of the log file, one in binary, and the other in text. However, there is a performance impact as the security gateway now has to write two log files instead of just one. Alternatively, the flatten8 utility is used to convert a binary log file into a text log file.<br>This feature is not enabled by default. |

Old Log Directory

Old Log Directory field displays the location of old log files. The default in Windows is /usr/adm/sg/oldlogs; in Linux the default location is var/log/sg/. This is a read-only field.

Dictionary Directory

The Dictionary Directory field indicates which language files are used to display log file entries. These fields are read-only.

Language Directory

The Language Directory field indicates which language files are used to display log file entries. These fields are read-only

Maximum Log File Size

Select the maximum size (in KB) for your logging file. This is the maximum size to which the log file can grow before it is saved in the oldlogs directory. A new log file is created when this maximum size is reached. The default is 204800 KB (200 MB).

Low Disk Threshold

Select the threshold (in KB) at which the logging service begins to issue warnings about a low disk space condition. If a machine tends to do a lot of logging, this number should be increased so the administrator has time to archive log files. The default is 100 KB.

Consolidation Threshold

Use the arrows to select the consolidation threshold. This is the threshold at which log messages are consolidated to save space. The default is 30.

Consolidation Window

Use the arrows to select the consolidation timeout. If, in this amount of time, more than the configured threshold of the same messages are seen, a special consolidated log message is generated. If the message has not been seen in the time specified, it is removed from the consolidation tree. The default is five seconds.

Maintainer Sleep Time

Use the arrows to select the maintainer sleep time (in seconds). This is the amount of time the maintainer sleeps between trips through the consolidation tree. The default is one.

Log Request Port Number

Use the arrows to select the port number on which to accept log requests. The default is port 6868.

Translation Request Port Number

Use the arrows to select the port number on which to accept translation requests. The default is port 6867.

Rollover Request Port Number

Use the arrows to select the port number on which to accept rollover requests. The default is port 6866.

| | |
|---|---|
| Auto delete old Log files | By default, the logging service stops when no additional disk space is available. To automatically delete old logfiles, check **Auto delete old logfiles**. Enabling this option deletes the oldest log files instead. This feature is disabled by default. |
| Minimum number of hours to keep logfile | For Symantec Gateway Security appliances, if the firewall reaches this condition, it will stop. Use the arrows to select the minimum time (in hours) to keep old logfiles. The default is 24. |
| Command to run when diskspace exhausted | Type the command to execute when the logfile reaches its size threshold. The security gateway's binary directory (/usr/raptor/bin) is prepended to any entry you make here. |
| Caption | Type a brief description of the logging service that displays in the SGMI |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

7 In the Services window, click **Apply**.

8 On the Selection Menu, click **Activate**.
The logging service is now configured for use.

# Viewing and consolidating events

Events that are collected from your security gateways are forwarded to a common SESA DataStore. From the SESA Console, you can access reports that allow you to view a high-level summary of events and alerts for all managed security gateways.

Event reports that pertain to security gateways are grouped and appear under the event family reports in the Events tab in the SESA Console.

The following event families are supported:

- Firewall Event Family
- Symantec Security Gateways (Group 1)
- Antivirus Event Family
- Network Intrusion Event Family
- System Events

Each event family offers consolidated view of all events and ability to view them in a variety of predefined or customized reports. For a complete description of the reports that are supported in each event family as well as information on creating and viewing customized reports, see “Viewing event reports” on page 351.

## Managing events and alerts in SESA

Over time, Symantec security gateways can generate a high volume of security event and log data. The controls described throughout this chapter help you to fine tune and manage how local security gateways log events to the SESA DataStore.

Version 1.1.5 of SESA supports a Purge Utility that lets you purge events and alerts from the IBM DB2 Universal Database (SESA DataStore). You can purge data by product type, event type, severity, and many other filtering criteria to make database purges as broad or as specific as you want.

The Purge utility gives you the option of initiating a purge of a SESA DataStore as soon as you create a purge configuration (called a purge filter). However, you can also use the Purge utility to create and save purge filters, which you can run.

See your SESA documentation or SESA Console online Help for details.

Chapter 13

# Viewing event reports

This chapter includes the following topics:

**Note:** The topics discussed in this chapter apply to both Symantec Event Manager for Security Gateways (required to manage Symantec security gateways with native or integrated SESA support) and Symantec Event Manager for Firewall (required to manage Symantec legacy products in SESA).

## About viewing event reports

Once the Symantec Event Manager for Security Gateways (Group 1) v2.0.1 or Symantec Event Manager for Firewall has been installed, and security gateways have joined SESA, you can use the SESA Console to display security events for all Symantec or third-party security gateways in a variety of report formats.

Security events are informational messages that are forwarded by SESA Agents to the SESA Manager and are stored in the SESA DataStore. Events are generated by security gateways, such as Symantec Enterprise Firewall, when specific activities occur. They are also generated by internal SESA components to reflect status changes, for example SESA processes starting or stopping or configuration updates.

Reports for Symantec security gateway products are part of the Firewall Event Family, listed in the Events view tab of the SESA Console. The reports provide a high-level summary of your network's security posture that can be used for further data analysis. Within a report, for example, you can focus on an individual event record, and display a full set of details from the SESA DataStore for that particular event.

SESA also provides the ability to create a customized report from a base report. For more details on using SESA's reporting feature and creating customized reports, refer to the *Symantec Enterprise Security Architecture Administrator's Guide*.

See "Viewing reports" on page 352.

See "Sample reports" on page 360.

See "Creating custom reports using SESA" on page 365.

# Viewing reports

Viewing reports under SESA quickly gives you a breakdown of key events. Reports can include a summary of all events, or can include the most active Web users in the last 24 hours. All SESA reports are found in the SESA Console, on the Events view tab.

Reports appear in pie chart, bar graph, scatter graph and tabular formats. Next to each report is an icon that represents the format in which that particular report appears.

Symantec provides a common set of reports for all supported security gateways. Predefined reports are included for the following event classes:

- Firewall Event Family
- Security Gateways (Group 1)
- Antivirus Event Family
- Network Intrusion Event Family
- Intrusion Event Family
- System Event Family

This section lists the reports, within each event class, that are supported for security gateways. Although you may see additional reports for these event classes in the SESA Console Events view tab, if not specifically listed in this section, security gateways do not generate event data for these reports.

Also note that some of the reports presented in this section only show data when the appropriate event class or subclass has been enabled. For example, if you have not enabled the statistics class, the Firewall connection statistics report will be empty.

## To view reports

The basic report tasks you can perform include the following:

- View reports
- Change the sort order of a report
- View the supporting information for a chart

### To view event manager reports

1. In the SESA Console, on the Events tab, in the left pane, expand **SESA Datastore**.
2. Expand **Firewall Event Family**.
3. Expand **Security gateways (Group 1)**.
4. To view a report, in the left pane, select the report.
   The report appears in the right pane.

### To change the sort order of a report

1. View a report.
2. In the right pane, click the column name.
   Click the column name once to sort in descending order, and click twice to sort in ascending order.

### To view supporting information for a graph

1. View a report that has a graph icon.
2. In the right pane, click the chart. The event information is presented in tabular format below the chart.

Once the SESA Manager has been set up for event management, a new selection of report groups appear that includes the Firewall Event Family, Security gateways (Group 1), Antivirus Event Family, and Network Intrusion Event Family.

# Firewall Event Family

The Firewall Event Family includes reports on all security gateways that report to SESA. This includes any Symantec security gateway, including any Symantec legacy product, such as the Symantec Gateway Security 1.0 or VelociRaptor 1.5. It also includes third-party products that have integrated with SESA using a (separately purchased) Event Collector.

**Table 13-1** Firewall Event Family reports

| Event report | Description |
|---|---|
| All firewall network events | Lists any type of event that has occurred on any security gateway. |
| Firewall rule matches | Displays the number of events matching individual rule numbers on each security gateway. |
| All denied connections | Shows the date, security gateway, source and destination IP address, rule, and direction of traffic for all denied connections. |
| Denied connections: By firewall | Presents the percentage of denied security gateway connections. |
| Denied connections: By source address | Shows the percentage of connections denied because of their source IP address. |
| Denied connections: By service | Displays the percentage of connections denied because of the requested service. |
| All authentication failures | Lists the date, security gateway, source and destination IP address, rule, direction of traffic, service type, and user name for each connection that failed authentication. |
| Firewall connection statistics | Presents statistics for each connection through the selected security gateway, including the time, service, destination host, source host, starting time, duration, protocol, rule, direction of the rule (inbound or outbound), user ID, and byte count. |
| Firewall traffic: Megabytes last 30 days | Shows the daily amount of traffic (in MB) handled by the security in the past 30 days. The value reflected is based on what's been sent to SESA. |
| Firewall traffic: Kilobytes by Firewall last 24 hours | Displays the kilobytes passed by each security gateway within the past 24 hours. The value reflected is based on what's been sent to SESA. |
| Firewall traffic: By source address last 24 hours | Shows the percentage of traffic (in KB) exchanged between each source address within the past 24 hours. |

**Table 13-1** Firewall Event Family reports (Continued)

| Event report | Description |
|---|---|
| Firewall traffic: By service type last 24 hours | Presents the traffic exchanged (in KB) within the past 24 hours, separated by the type of service used. |
| FTP details | Provides a detailed listing of all files transferred, including date, time, user name, source and destination IP address, and whether the operation was a PUT or GET. |
| Web details | Provides a detailed report of all HTTP/HTTPS messages, including date, time, user name, source and destination IP address, and the operation performed. |
| Web site volume last 24 hours | Shows the volume (in MB) percentage for all HTTP/HTTPS connections based on the destination IP address. |
| Service usage: Kilobytes by user last 24 hours | Displays the service usage totals (in KB) for each service type. |
| Most active Web users last 24 hours | Shows the percentage of HTTP/HTTPS connections from each source connecting within the past 24 hours. |

## Security Gateways (Group 1)

Similar to the Firewall Event Family reports, the Security gateways (Group 1) reports compile data received from all security gateways that report to SESA.

**Table 13-2** Security gateways (Group 1) reports

| Event report | Description |
|---|---|
| All Symantec Security Gateway network events | Lists any type of event that has occurred on a security gateway. |
| Possible attack events | Lists all possible attack events on your security gateways. |
| Possible attacks: By type | Presents a pie chart of possible attacks on your security gateways grouped by event type and detailed information about each event that may be an attack. |
| Possible attacks: By source hostname | Presents a pie chart of possible attacks on your security gateways grouped by source hostname information (where the traffic is coming from) and detailed information about each event that may be an attack. |
| Possible attacks: By destination hostname | Presents a pie chart of possible attacks on your security gateways grouped by destination hostname information (where the attacker is attempting to connect) and detailed information about each event that may be an attack. |

**Table 13-2** Security gateways (Group 1) reports (Continued)

| Event report | Description |
|---|---|
| Remote management connections | Lists each time a client has connected to perform remote management. Successful and denied connections are both listed. |
| Unauthorized process shutdown | Lists events that occur when a security gateway process is shut down by someone other than the administrator. |
| Management report | Describes any events related to remote management. |
| Component report | Describes events related to process interaction between components such as operating system drivers and services such as DNS. It also describes events that report interactions that violate policies. |
| Network report | Lists detailed errors between two endpoints of communication, a range of addresses for filtering, or a specific network client request. This includes events at the driver level normally generated by the filter driver or VPN services and configuration information about network drivers or services. |
| License report | Describes events that occur because of licensing problems. |
| General report | Lists generic logged information. This information can include:<br>■ Low-level connection information.<br>■ Security gateway operation information.<br>■ User validation information.<br>■ Hardware or component state change information. This includes stop and start messages and CPU temperature.<br>■ Security gateway and component version information. |
| Duplicate report | Lists messages that were consolidated because they were duplicates.<br>**Note:** Repeated messages may indicate a more serious error condition. |

## Antivirus Event Family

The Antivirus Event Family includes reports generated based on data received from any security gateway with a registered antivirus license. There are a group of reports in the Antivirus Event Family that are used exclusively by other Symantec products, and are not reported to by any security gateway product.

**Note:** Antivirus reports are not currently supported for the Symantec Enterprise Firewall, version 8.0.

**Table 13-3** Antivirus Event Family reports

| Event report | Description |
|---|---|
| All data incidents | Shows all antivirus data incidents in tabular format. |
| All file data incidents | Shows all antivirus file data incidents in tabular format. |
| All virus incidents | Shows all antivirus data incidents in tabular format. |
| Infections detected current quarter | Shows all antivirus infections detected in the last quarter in scatter graph format. |
| All file virus incidents | Shows all antivirus file incidents in tabular format. |
| Top 10 infected machines | Shows the top 10 machines infected with viruses in bar chart format. |
| Top 10 viruses | Shows the top 10 viruses detected for all machines in bar chart format. |
| Action summary | Shows a summary of all antivirus actions taken in pie chart format. |
| Virus locations | Displays types of antivirus data in tabular format, for example file. |

## Network Intrusion Event Family

The Network Intrusion Event Family includes reports generated based on data received from any security gateway with a registered intrusion detection license.

**Note:** Network Intrusion reports are not currently supported for the Symantec Enterprise Firewall, version 8.0..

**Table 13-4** Network Intrusion Event Family reports

| Event report | Description |
|---|---|
| All network intrusion events | Shows all network intrusion event activity. |
| Network intrusions: By vendor signature | Shows all network intrusion activity detected broken down by vendor signature. The report appears in pie chart format. |
| Network intrusions: By severity | Shows all network intrusion activity detected broken down by severity. The report appears in pie chart format. |
| Network intrusions: Last 30 days | Shows all network intrusion activity detected within the past 30 days in scatter graph format. |
| Network intrusions: By intrusion protocol | Shows all network intrusion activity detected broken down by intrusion protocol. The report appears in pie chart format. |
| Network intrusions: By source IP | Shows all network intrusion activity detected broken down by source IP. The report appears in pie chart format. |
| Network intrusions: By destination IP | Shows all network intrusion activity detected broken down by destination IP. The report appears in pie chart format. |
| Network intrusions: By destination port | Shows all network intrusion activity detected broken down by destination port. The report appears in pie chart format. |

## Intrusion Event Family

The Intrusion Event Family includes reports generated based on data received from any security gateway with a registered host or enterprise intrusion detection license.

**Note:** Intrusion reports are not currently supported for the Symantec Enterprise Firewall, version 8.0.

**Table 13-5** Intrusion Event Family reports

| Event report | Description |
|---|---|
| All intrusion events | Shows all network intrusion activity detected in tabular format. |
| Intrusions: By vendor signature | Shows all network intrusion activity detected broken down by vendor signature. The report appears in pie chart format. |
| Intrusions: By severity | Shows all network intrusion activity detected broken down by severity. The report appears in pie chart format. |
| Intrusions: Last 30 days | Shows all network intrusion activity detected within the past 30 days in scatter graph format. |
| Intrusions: By destination IP | Shows all network intrusion activity detected broken down by destination IP. The report appears in pie chart format. |

## System Event Family

The System Events class includes reports from the following sources:

- Events that are generated when LiveUpdate runs and finds available updates.
- Events that are reported by the Antivirus component of Symantec security gateways.

The System Events folder may also contain additional reports that are based on the entire SESA DataStore. For more information, refer to the SESA Console online Help.

## Sensitive Content Filtering and Content Filtering Event Family

Two additional report families, Sensitive Content Filtering Event Family and Content Filtering Event Family, are also included when event management is enabled on the SESA Manager, but are currently not reported to by any security gateway.

# Sample reports

This section provides examples of five commonly used reports. Within each report, you can view a high-level summary of network events or obtain details on each individual event record. Each report fully described and includes interpretations of the data that is displayed.

**Note:** A null in any field means that no information is available.

Reports that depict event data in the form of a pie chart show individual event record views.

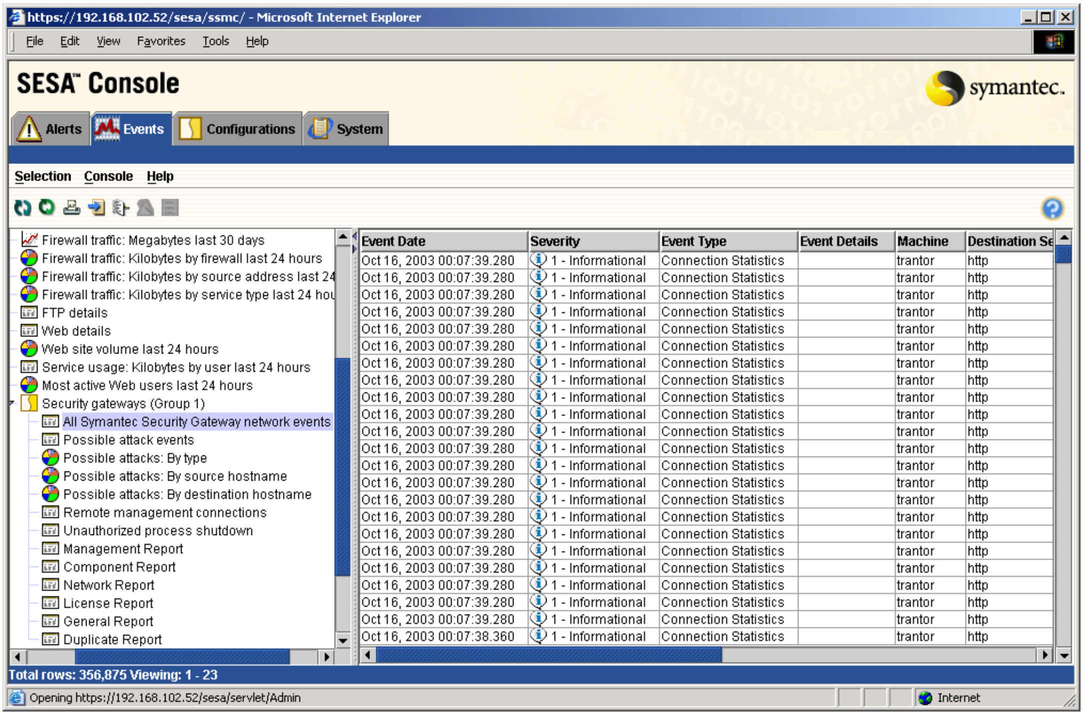
This section describes the following reports:

- All Symantec Security Gateway network events
- Possible attack events
- Possible attacks: By type
- Possible attacks: By source hostname
- Network Report

# All Symantec Security Gateway network events

This report lists any type of event that occurred on a security gateway.

**Figure 13-1** All Symantec Security Gateways network events report


https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
SESA™ Console
symantec.
Alerts
Events
Configurations
System
Selection Console Help
Firewall traffic: Megabytes last 30 days
Firewall traffic: Kilobytes by firewall last 24 hours
Firewall traffic: Kilobytes by source address last 24
Firewall traffic: Kilobytes by service type last 24 hou
FTP details
Web details
Web site volume last 24 hours
Service usage: Kilobytes by user last 24 hours
Most active Web users last 24 hours
Security gateways (Group 1)
All Symantec Security Gateway network events
Possible attack events
Possible attacks: By type
Possible attacks: By source hostname
Possible attacks: By destination hostname
Remote management connections
Unauthorized process shutdown
Management Report
Component Report
Network Report
License Report
General Report
Duplicate Report
Opening https://192.168.102.52/sesa/servlet/Admin
Internet

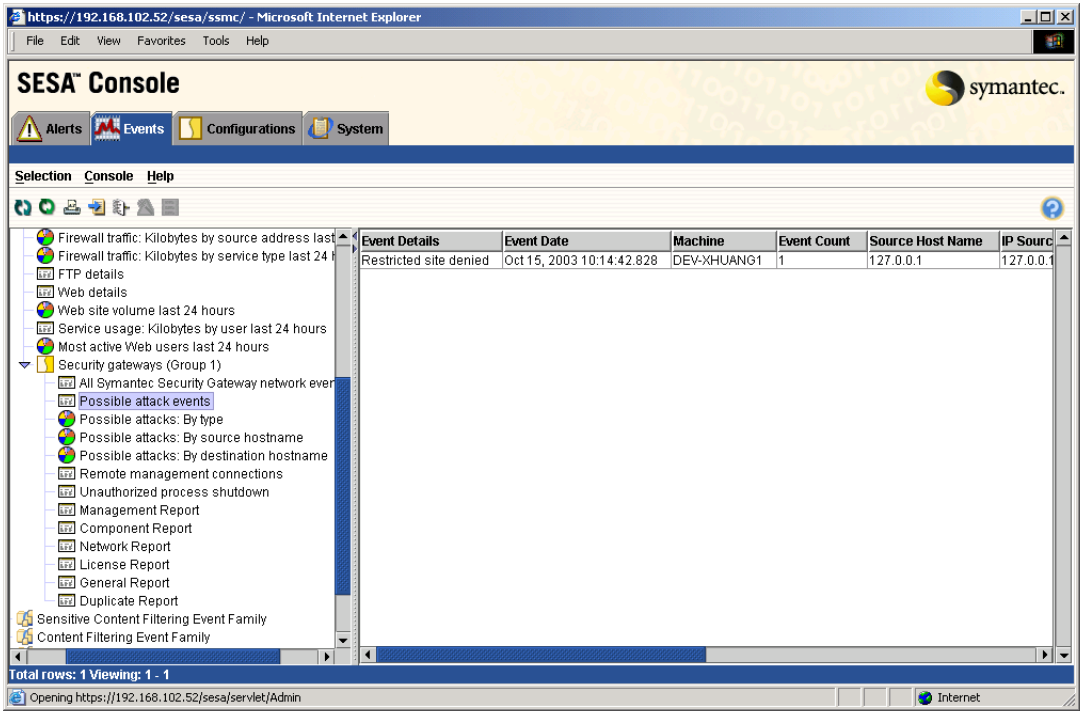
| Event Date | Severity | Event Type | Event Details | Machine | Destination Se |
|---|---|---|---|---|---|
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:39.280 | 1 - Informational | Connection Statistics | | trantor | http |
| Oct 16, 2003 00:07:38.360 | 1 - Informational | Connection Statistics | | trantor | http |

Total rows: 356,875 Viewing: 1 - 23

## Possible attack events

This report lists all possible attack events on managed security gateways.

**Figure 13-2** Possible attack events report



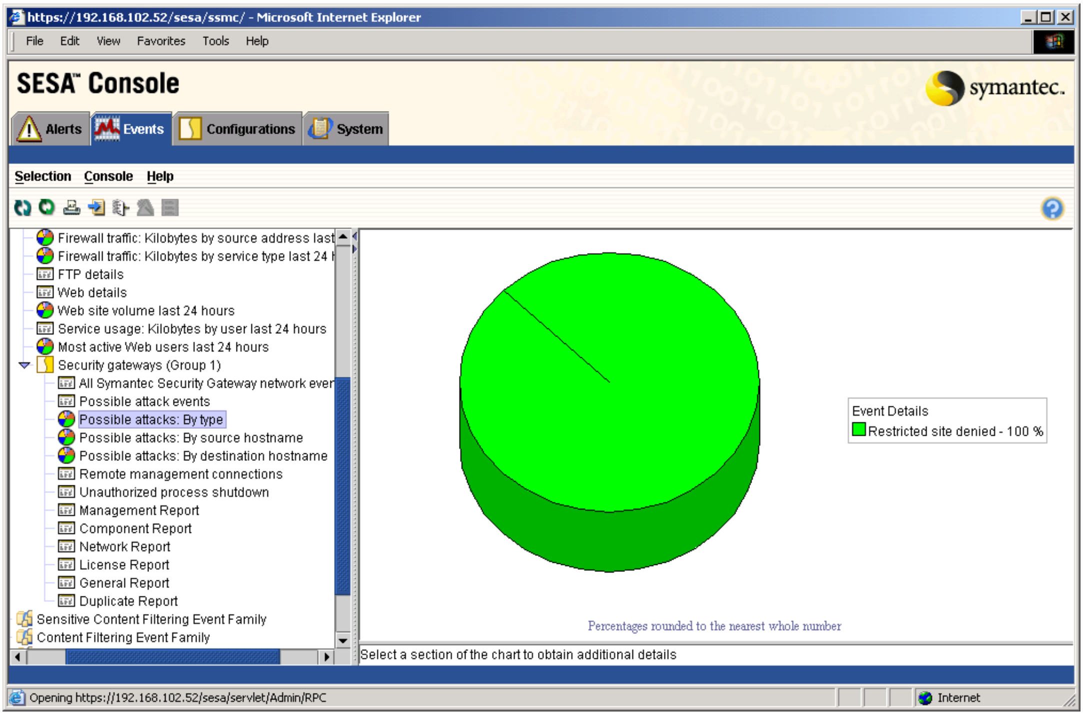
https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
SESA™ Console
symantec.
Alerts
Events
Configurations
System
Selection Console Help
Firewall traffic: Kilobytes by source address last
Firewall traffic: Kilobytes by service type last 24 h
FTP details
Web details
Web site volume last 24 hours
Service usage: Kilobytes by user last 24 hours
Most active Web users last 24 hours
Security gateways (Group 1)
All Symantec Security Gateway network ever
Possible attack events
Possible attacks: By type
Possible attacks: By source hostname
Possible attacks: By destination hostname
Remote management connections
Unauthorized process shutdown
Management Report
Component Report
Network Report
License Report
General Report
Duplicate Report
Sensitive Content Filtering Event Family
Content Filtering Event Family
Total rows: 1 Viewing: 1 - 1
Opening https://192.168.102.52/sesa/servlet/Admin
Internet

| Event Details | Event Date | Machine | Event Count | Source Host Name | IP Sourc |
|---|---|---|---|---|---|
| Restricted site denied | Oct 15, 2003 10:14:42.828 | DEV-XHUANG1 | 1 | 127.0.0.1 | 127.0.0.1 |

## Possible attacks: By type

This report presents a pie chart of possible attacks on managed security gateways, grouped by event type and detailed information about each event that may be an attack.

**Figure 13-3** Possible attacks: By type report


https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help
SESA™ Console
symantec.
Alerts
Events
Configurations
System
Selection
Console
Help
Firewall traffic: Kilobytes by source address last
Firewall traffic: Kilobytes by service type last 24 h
FTP details
Web details
Web site volume last 24 hours
Service usage: Kilobytes by user last 24 hours
Most active Web users last 24 hours
Security gateways (Group 1)
All Symantec Security Gateway network ever
Possible attack events
Possible attacks: By type
Possible attacks: By source hostname
Possible attacks: By destination hostname
Remote management connections
Unauthorized process shutdown
Management Report
Component Report
Network Report
License Report
General Report
Duplicate Report
Sensitive Content Filtering Event Family
Content Filtering Event Family
Internet

Event Details
🟩 Restricted site denied - 100 %

Percentages rounded to the nearest whole number

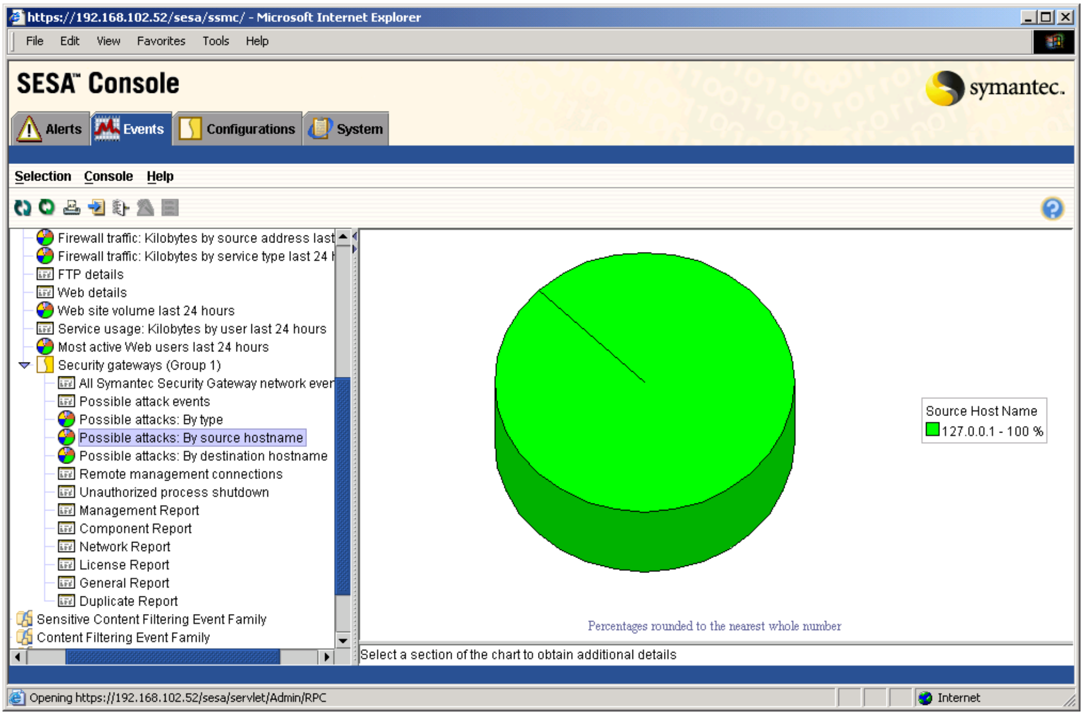
Select a section of the chart to obtain additional details

Opening https://192.168.102.52/sesa/servlet/Admin/RPC

## Possible attacks: By source hostname

This report presents a pie chart of possible attacks on managed security gateways grouped by source hostname information (where the traffic is coming from) and detailed information about each event that may be an attack.

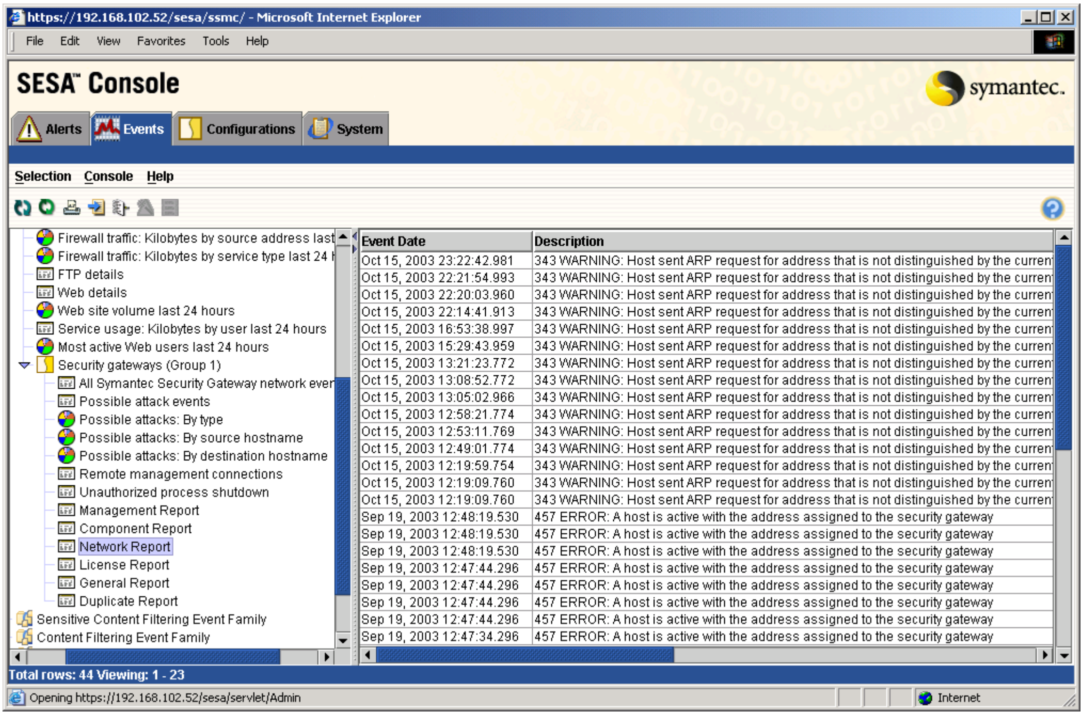
**Figure 13-4** Possible attacks: By source hostname


https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
SESA Console
symantec.
Alerts
Events
Configurations
System
Selection Console Help
Firewall traffic: Kilobytes by source address last
Firewall traffic: Kilobytes by service type last 24 h
FTP details
Web details
Web site volume last 24 hours
Service usage: Kilobytes by user last 24 hours
Most active Web users last 24 hours
Security gateways (Group 1)
All Symantec Security Gateway network ever
Possible attack events
Possible attacks: By type
Possible attacks: By source hostname
Possible attacks: By destination hostname
Remote management connections
Unauthorized process shutdown
Management Report
Component Report
Network Report
License Report
General Report
Duplicate Report
Sensitive Content Filtering Event Family
Content Filtering Event Family
Source Host Name
🟩 127.0.0.1 - 100 %
Percentages rounded to the nearest whole number
Select a section of the chart to obtain additional details
Opening https://192.168.102.52/sesa/servlet/Admin/RPC
Internet

## Network Report

This report lists detailed errors between two endpoints of communication, a range of addresses for filtering, or a specific network client request. This includes events at the driver level normally generated by the filter driver or VPN services and configuration information about network drivers or services.

**Figure 13-5** Network Report


https://192.168.102.52/sesa/ssmc/ - Microsoft Internet Explorer
File
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View
Favorites
Tools
Help
SESA™ Console
symantec.
Alerts
Events
Configurations
System
Selection
Console
Help
Firewall traffic: Kilobytes by source address last
Firewall traffic: Kilobytes by service type last 24 h
FTP details
Web details
Web site volume last 24 hours
Service usage: Kilobytes by user last 24 hours
Most active Web users last 24 hours
Security gateways (Group 1)
All Symantec Security Gateway network ever
Possible attack events
Possible attacks: By type
Possible attacks: By source hostname
Possible attacks: By destination hostname
Remote management connections
Unauthorized process shutdown
Management Report
Component Report
Network Report
License Report
General Report
Duplicate Report
Sensitive Content Filtering Event Family
Content Filtering Event Family
Total rows: 44 Viewing: 1 - 23
Opening https://192.168.102.52/sesa/servlet/Admin
Internet

| Event Date | Description |
|---|---|
| Oct 15, 2003 23:22:42.981 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 22:21:54.993 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 22:20:03.960 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 22:14:41.913 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 16:53:38.997 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 15:29:43.959 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 13:21:23.772 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 13:08:52.772 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 13:05:02.966 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:58:21.774 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:53:11.769 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:49:01.774 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:19:59.754 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:19:09.760 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Oct 15, 2003 12:19:09.760 | 343 WARNING: Host sent ARP request for address that is not distinguished by the curren |
| Sep 19, 2003 12:48:19.530 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:48:19.530 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:48:19.530 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:47:44.296 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:47:44.296 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:47:44.296 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:47:44.296 | 457 ERROR: A host is active with the address assigned to the security gateway |
| Sep 19, 2003 12:47:34.296 | 457 ERROR: A host is active with the address assigned to the security gateway |

# Creating custom reports using SESA

In addition to the reports in the Firewall Event Family and the Symantec Security Gateway folder, SESA lets you create customized event reports that display data that is of interest to your organization.

For example, to create a report that shows all connections attempts for a specific address, you can display the All Firewall Events report and add a filter that focuses the report on the address that you are interested in.

For more information, see the section on creating custom reports in the *Symantec Enterprise Security Architecture Administrators Guide* or in the online Help, accessible from the SESA console Help menu in the Events view tab.

# Creating alerts and notifications

This chapter includes the following topics:

## About creating alerts and notifications

This chapter describes how to configure alerts and notifications for managed security gateways.

SESA lets you create alerts for events that are collected by the SESA Manager. An alert is a notification that is generated by the occurrence of one or more events to which you want to draw attention. In a typical enterprise-scale installation, SESA and its managed security products generate a large amount of event data.

The purpose of alerts is to single out certain events and bring them to the attention of an administrator on a separate display. The SESA administrator is responsible for configuring which events become alerts.

When configuring alerts, you identify users who are notified when the alert occurs. For each user, you can specify the email address and pager numbers that are used to send these notifications. You can also specify when the user will be notified. You can add email addresses, pager numbers and notification times when creating a new user or by editing the user’s properties. SESA alert notifications are configured using the System view tab in the SESA Console.

See “Creating SESA alert configurations” on page 368.

You can also configure notifications for each managed security gateway. Security gateway notifications are sent in response to the different levels of alert messages logged by a security gateway. You can control the type of notification based on the level of the log message, varying in severity from a notice to a critical alert for each security gateway. Security gateway notifications are created using the Configurations view tab in the SESA Console.

See “Creating security gateway notifications” on page 369.

# Creating SESA alert configurations

When SESA is first installed, no alerts are configured. There are two ways to create alerts:

- Using an existing event as the trigger for the alert.
  For this method, choose an event from the events database to be the trigger for the alert. Right-click an event to run the Create a new Alert Configuration Wizard. The wizard lets you specify an alert name and severity. Once the alert is configured, the SESA Manager generates an alert every time it receives this type of event.
  Since most of the required alert information–the details of the event that will trigger the alert–is taken from the event you select, you can create an alert from an event very quickly. The only additional information you must supply is a name for the alert configuration.
  You can specify the notification information for the alert when you create it or later, by editing the alert configuration. When you edit the completed alert configuration, you can also provide additional event filters to specify which events generate the alert.
- Creating a new alert configuration from scratch.
  To create a new alert configuration from scratch, run the Create a new Alert Configuration Wizard from the Alert Configuration dialog box accessible in the Alerts view tab.

Alerts can be viewed in the SESA Console by displaying the tabular or graphical reports that are provided. You can use the provided report formats to create custom reports, sort the alert data, and filter alerts.

You can view the details of alerts to see the events that trigger the alert and whether the designated people on your security team have responded to them.

You can find a detailed discussion of creating SESA alerts and notifications in the *Symantec Enterprise Security Architecture Administrator’s Guide* or in the online Help, accessible from the SESA console Help menu in the Alerts view tab.

# Creating security gateway notifications

This section explains how to set up notifications to warn designated people of problems on the security gateway. Notifications are sent in response to the different levels of alert messages logged by the security gateway. You can control the type of notification based on the level of the log message, varying in severity from a notice to a critical alert.

Based on the type of notification, you can configure the system to send email or an audio file, beep pagers, execute client programs, or issue SNMP traps in response to log messages.

The following table shows the information you need to supply for each notification type.

**Table 14-1** Notification entries

| Notification type | Required entry | Description |
|---|---|---|
| Audio | Audio file | Type the name of the sound file to be played. |
| | Volume level | Set the Volume level text box to the appropriate value. |
| Client program | Command line | Type the name of the client program. The notify server application calls the program as it appears in the Command-line text box appending two arguments: the date and the contents of the message text. |
| Email | Email address | Type the email address of the mail recipient, for example, johnd@work.com. |
| Pager | User | Type the name of the page recipient. |
| | Pager number | For numeric pagers, type the recipient's pager number, PIN, and numeric code (number must end in a semicolon) separated by commas.<br>For alphanumeric pagers, type the paging service's TAP access number. |
| SNMP V1 Trap | Host address | Type the host address of the recipient. |
| | Port | Type the port number to be used. |
| | Community | Type a text string agreed upon by the SNMP manager. |

**Table 14-1** Notification entries (Continued)

| Notification type | Required entry | Description |
|---|---|---|
| SNMP V2 Trap | Host address | Type the host address of the recipient. |
| | Port | Type the port number to be used. |
| | Source party/ Destination party | Type the source and destination OIDs (object identifiers) agreed upon by the SNMP manager. |
| | Context | Type the trap context OID value. This must include both Internet and Symantec-defined MIB variables. Refer to the Reference Guide for more details. |

### To configure a notification

1. In the SESA Console, in the left pane, click **Location Settings**.
2. In the right pane, on the Notifications tab, click **New Notification** and select the type of notification to configure.
3. Click **Properties**.
4. In the Properties window, configure the properties as required by the type of notification you are creating, as described in Table 14-1.

## Audio notifications

An audio notification causes the security gateway to play a sound file in response to a message of defined severity within the time frame you have specified.

For Windows users, Symantec includes an audio file called siren.wav, but you can specify any .wav file in place of this one. The audio file for Solaris systems is called alarm.au.

To specify a different .wav file:

- Use only the file name if the file is located in the sg directory.
- If the file is located in a different directory but on the same drive as the siren.wav file, specify the path and the file name but omit the drive letter.
- If the file is located in a different directory on a different partition from the siren.wav file, specify the full path and file name, including the drive letter.

---

**Note:** To use an audio notification, the security gateway must have a properly installed sound card.

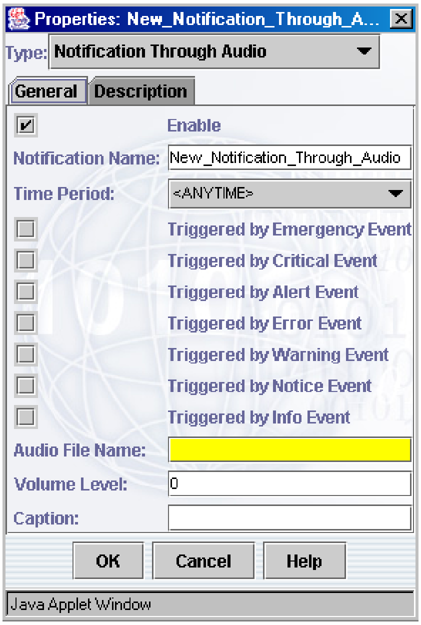
---

### To configure an audio notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, click **New Notification > Notification Through Audio**.

3 Click **Properties**.



Properties: New_Notification_Through_A...

Type: Notification Through Audio

General | Description

☑ Enable

Notification Name: New_Notification_Through_Audio

Time Period: <ANYTIME>

□ Triggered by Emergency Event

□ Triggered by Critical Event

□ Triggered by Alert Event

□ Triggered by Error Event

□ Triggered by Warning Event

□ Triggered by Notice Event

□ Triggered by Info Event

Audio File Name:

Volume Level: 0

Caption:

4 In the Properties window, in the Type drop-down list, the notification type you selected is displayed.
You can change the notification type, but the default notification name will remain.

5 On the General tab, do the following:

| | |
|---|---|
| Enable | To enable the notification, check Enable.<br>The default is enabled. |
| Notification Name | Type a name for the audio notification. |
| Time Period | Optionally select a time period in which the notification will be valid. The default is <ANYTIME>, meaning the notification is valid at all times if Enable is checked. |
| Triggered by Emergency Event | Check the appropriate check boxes to configure the severity of the alert necessary to trigger the notification. |
| Triggered by Critical Event | |
| Triggered by Alert Event | |
| Triggered by Error Event | |
| Triggered by Warning Event | |
| Triggered by Notice Event | |
| Triggered by Info Event | |
| Audio File Name | Type the name of the audio file you want to be played. |
| Volume Level | Type the volume level (0 - 100) at which you want the audio file played. |
| Caption | Type a brief description of the notification. |

6 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

7 Click **OK**.

8 On the Notifications tab, click **Apply**.

9 On the Selection Menu, click **Activate**.
Your audio notification is now configured for use.

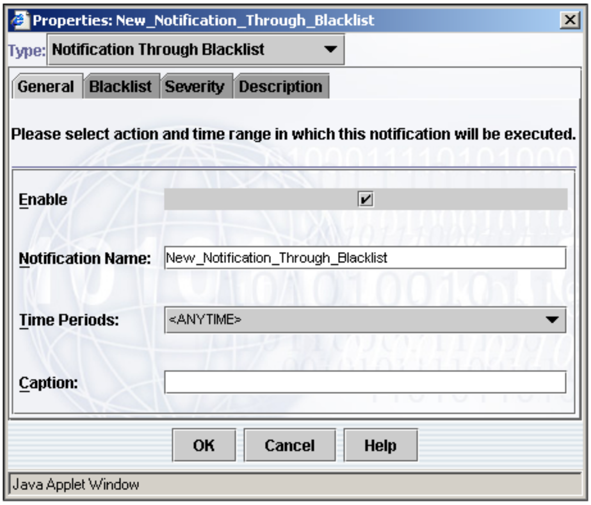
## Configuring Blacklist notifications

### To configure a Blacklist notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, click **New Notification > Notification Through Blacklist**.

3 Click **Properties**.



Properties: New_Notification_Through_Blacklist

Type: Notification Through Blacklist

Please select action and time range in which this notification will be executed.

Enable ☑

Notification Name: New_Notification_Through_Blacklist

Time Periods: <ANYTIME>

Caption:

4 In the Properties window, in the Type drop-down list, the notification type you selected is displayed.

You can change the notification type, but the default notification name will remain.

5 On the General tab, to enable the notification, check **Enable**.

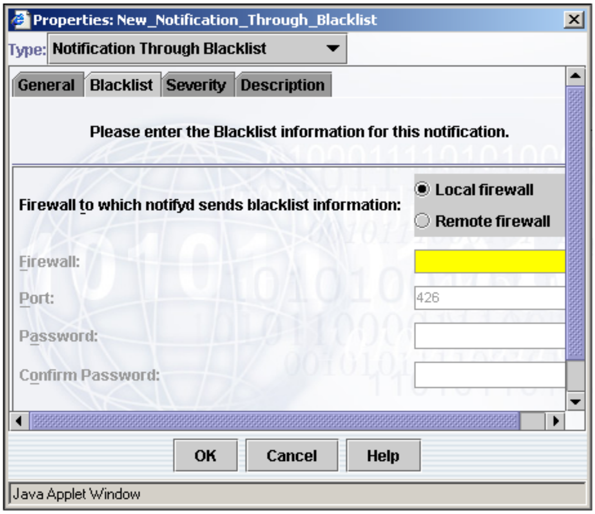
This default is enabled.

6 In the Notification Name text box, type a name for the blacklist notification.

7 In the Time Period drop-down list, you can optionally select a time period in which the notification will be valid.

The default is <ANYTIME>, meaning the notification is valid at all times if Enable is checked.

8 In the Caption text box, type a brief description of the notification.



Properties: New_Notification_Through_Blacklist

Type: Notification Through Blacklist

Please enter the Blacklist information for this notification.

Firewall to which notifyd sends blacklist information: ● Local firewall ○ Remote firewall

Firewall:

Port: 426

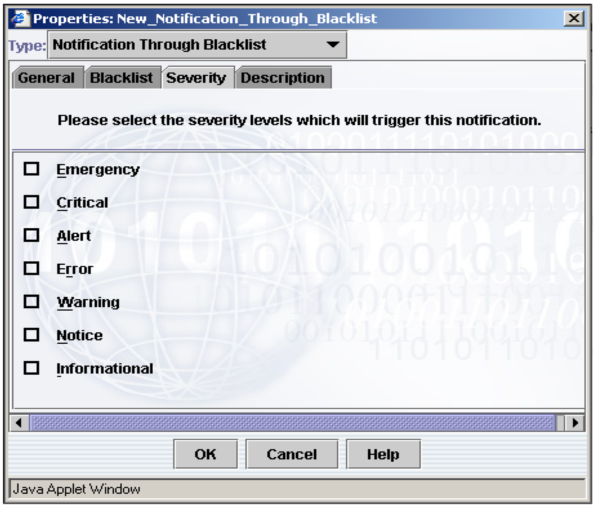
Password:

Confirm Password:

9 On the Blacklist tab, do the following:

| | |
|---|---|
| Firewall to which notifyd sends blacklist information | ■ To have the Notify daemon send the blacklist information to the local security gateway, click **Local firewall**. This is the default setting; you do not need to fill in any further information on this tab.<br>■ To have the Notify daemon send the blacklist information to a remote security gateway, click **Remote firewall**. |
| Firewall | Type the IP address or fully qualified domain name of the remote security gateway selected above. |
| Port | Type the port number over which to send the blacklist information to the remote security gateway. The default is port 426. |
| Password | Type the administrator’s password for the remote security gateway. |
| Confirm | Type the password again to confirm it. |

10 On the Severity tab, select the severity levels which will trigger the blacklist notification by checking the appropriate check boxes.
None of the boxes are checked by default.



Properties: New_Notification_Through_Blacklist

Type: Notification Through Blacklist

Please select the severity levels which will trigger this notification.

□ Emergency
□ Critical
□ Alert
□ Error
□ Warning
□ Notice
□ Informational

11 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

12 Click **OK**.

13 On the Notifications tab, click **Apply**.

14 On the Selection Menu, click **Activate**.
Your blacklist notification is now configured for use.

# Client program notifications

A client program notification causes the system to start up a designated client program in response to a message.

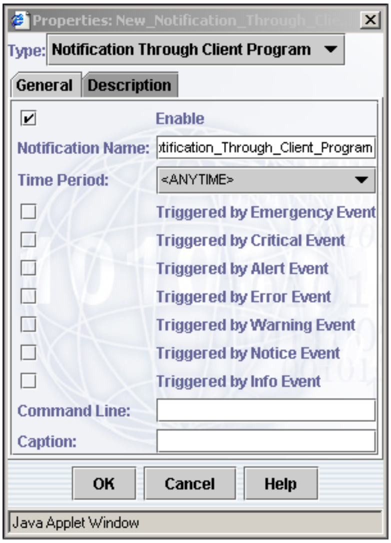
**Note:** Any client program you call must exit upon completion. Multiple copies of your program may run at once.

### To configure a client program notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, click **New Notification > Notification Through Client Program**.

3 Click **Properties**.



Properties: New_Notification_Through_Cli

Type: Notification Through Client Program

☑ Enable

Notification Name: tification_Through_Client_Program

Time Period: <ANYTIME>

☐ Triggered by Emergency Event

☐ Triggered by Critical Event

☐ Triggered by Alert Event

☐ Triggered by Error Event

☐ Triggered by Warning Event

☐ Triggered by Notice Event

☐ Triggered by Info Event

Command Line:

Caption:

4 In the Properties window, do the following:

| | |
|---|---|
| Type | In this drop-down list, the notification type you selected is displayed. You can change the notification type, but the default notification name will remain. |
| Enable | To enable the notification, check **Enable**. |
| Notification Name | Type a name for the notification. |
| Time Period | Select a time period during which the notification will be enabled. The default is <ANYTIME>, meaning the notification will be valid at all times if Enable is checked. |
| Triggered by | Check the appropriate check boxes to configure the severity of the alert necessary to trigger the notification. |
| Command Line | Type the executable file name necessary to launch the client program. |
| Caption | Type a brief description of the notification. |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

7 On the Notifications tab, click **Apply**.

8 On the Selection Menu, click **Activate**.
Your client program notification is now configured for use.

## Email notifications

Mail notifications messages are not encrypted. A hacker could use the information in them pertaining to the operation of your security gateway to launch an attack.

**Note:** Do not send mail notifications over a public network.

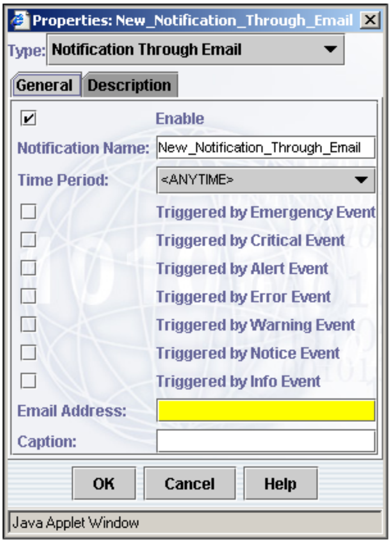
The notification program does not understand MX records, only addresses. When you specify a mail address in the form jane@acme.com, the system must convert acme.com directly into an IP address. You can do this by making an entry for acme.com in the hosts file.

### To configure an email notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, click **New Notification > Notification Through Email**.

3 Click **Properties**.


Properties: New_Notification_Through_Email

Type: Notification Through Email

☑ Enable
Notification Name: New_Notification_Through_Email
Time Period: <ANYTIME>
☐ Triggered by Emergency Event
☐ Triggered by Critical Event
☐ Triggered by Alert Event
☐ Triggered by Error Event
☐ Triggered by Warning Event
☐ Triggered by Notice Event
☐ Triggered by Info Event
Email Address:
Caption:

4 In the Properties window, on the General tab, do the following:

| | |
|---|---|
| Type | In this drop-down list, the notification type you selected is displayed. You can change the notification type, but the default notification name will remain. |
| Enable | To enable the notification, check **Enable**. |
| Notification Name | Type a name for the notification. |
| Time Period | Select a time period during which the notification will be enabled. The default is <ANYTIME>, meaning the notification will be valid at all times if **Enable** is checked. |
| Triggered by | Check the appropriate check boxes to configure the severity of the alert necessary to trigger the notification. |
| Email Address | Type the email address. |
| Caption | Type a brief description of the notification. |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

7 On the Notifications tab, click **Apply**.

8 On the Selection Menu, click **Activate**.
Your email notification is now configured for use.

## Pager notifications

A pager notification causes the system to page a recipient. You must have a Hayes-compatible modem and specify its COM/USB port and if applicable, baud rate, through the Notify daemon Properties window on the Advanced Location Settings tab. Then, you must configure a new pager notification on the Notifications Location Settings tab.

For alphanumeric pagers, the paging provider must support the Telocator Alphanumeric Paging (TAP) protocol, also known as the Motorola/IXO alphanumeric paging protocol.

Set your modem speed to 2400 or even 300 bps to maintain compatibility with the TAP protocol definition.

See “To configure the Notify daemon” on page 379.

See “To configure a pager notification” on page 380.

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**Note:** Symantec Gateway Security 5400 Series appliances support USB connections only, while the Symantec Enterprise Firewall, version 8.0 supports COM port connections only.To configure a pager notification

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### To configure the Notify daemon

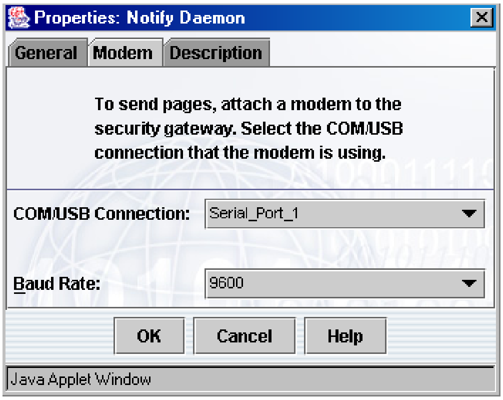
1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **Services**.

3 In the Services table, click **Notify Daemon**, then click **Properties**.

4 On the General tab, to enable the Notify daemon, check **Enable**.
This check box is checked (enabled) by default.

5 In the Caption text box, type a brief description of the Notify daemon.



To send pages, attach a modem to the security gateway. Select the COM/USB connection that the modem is using.

COM/USB Connection: Serial_Port_1

Baud Rate: 9600

6 On the Modem tab, in the COM/USB Connection drop-down list, select the modem port.
The choices are Serial_Port_1 and Serial_Port_2, which correspond to USB ports 1 (top) and 2 (bottom), respectively.

7 In the Baud Rate text box, if using an analog modem, type the modem baud rate.
The default is 9600 baud.

8 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
Click **OK**.

9 In the Services window, click **Apply**.

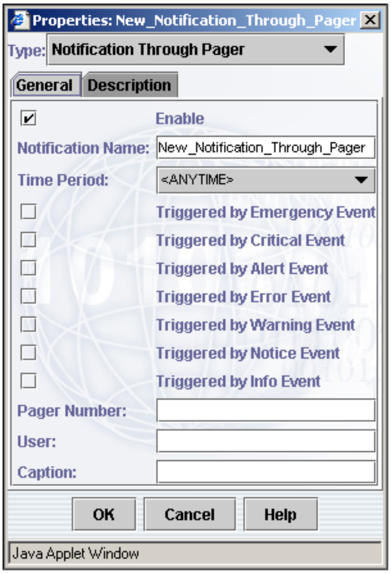
10 On the Selection Menu, click **Activate**.
The Notify daemon is now configured for use.

### To configure a pager notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, click **New Notification > Notification Through Pager**.

3 Click **Properties**.



Properties: New_Notification_Through_Pager

Type: Notification Through Pager

☑ Enable

Notification Name: New_Notification_Through_Pager

Time Period: <ANYTIME>

□ Triggered by Emergency Event
□ Triggered by Critical Event
□ Triggered by Alert Event
□ Triggered by Error Event
□ Triggered by Warning Event
□ Triggered by Notice Event
□ Triggered by Info Event

Pager Number:

User:

Caption:

4 In the Properties window, on the General tab, do the following:

Type
In this drop-down list, the notification type you selected is displayed. You can change the notification type, but the default notification name will remain.

Enable
To enable the notification, check **Enable**. This check box is checked by default.

| | |
|---|---|
| Notification Name | Type a name for the notification. The name cannot contain spaces. |
| Time Period | Select a time period during which the notification will be enabled. The default is <ANYTIME>, meaning the notification will be valid at all times if **Enable** is checked. |
| Triggered by | Check the appropriate check boxes to configure the severity of the alert necessary to trigger the notification. |
| Pager Number | Type the pager number.<br>For numeric pagers, type the recipient's pager number, PIN, and numeric code. The number must end in a semicolon and be separated by commas.<br>For alphanumeric pagers, type the paging service's TAP access number. |
| User | Type the name of the page recipient. For numeric pagers, this is simply an identifier. For alphanumeric pagers, type the mailbox ID of the page recipient. |
| Caption | Type a brief description of the notification. |

5. On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.
6. Click **OK**.
7. On the Notifications tab, click **Apply**.
8. On the Selection Menu, click **Activate**.
   Your pager notification is now configured for use.

## SNMP notifications

For SNMP managers to understand traps, the names of any device-specific variables to be exchanged must be agreed upon and supplied by the system administrator of the device to which the system sends SNMP traps. Their variable names are stored in the Management Information Base (MIB) of the agent and manager software. Although the appropriate MIB values for SNMP alerts are pre-configured in the security gateway, SNMP management stations that receive alerts from the security gateway must have this information incorporated into their MIBs.

To support this configuration task, the security gateway distribution CD includes the snmpv1.mib and snmpv2.mib files for SNMPv1 and SNMPv2 alerts. They are located in the \ClientSoftware\snmp directory.

**Note:** The information in SNMP messages pertaining to the operation of your security gateway is not encrypted and could be used to launch an attack. Do not send SNMP notifications over a public network.

## Configuring SNMP notifications

You can configure two types of SNMP notifications:

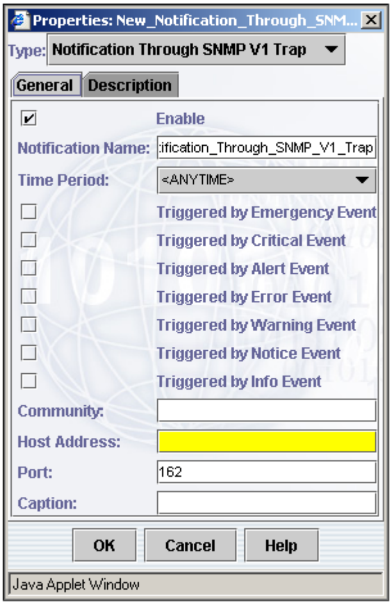
- SNMP V1
- SNMP V2

### To configure an SNMP V1 notification

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Notifications tab, create a **New Notification > Notification Through SNMP V1 Trap**.

3 Click **Properties**.



Properties: New_Notification_Through_SNM...

Type: Notification Through SNMP V1 Trap

☑ Enable

Notification Name: ification_Through_SNMP_V1_Trap

Time Period: <ANYTIME>

☐ Triggered by Emergency Event

☐ Triggered by Critical Event

☐ Triggered by Alert Event

☐ Triggered by Error Event

☐ Triggered by Warning Event

☐ Triggered by Notice Event

☐ Triggered by Info Event

Community:

Host Address:

Port: 162

Caption:

4 In the Properties window, on the General tab, do the following:

| | |
|---|---|
| Type | In this drop-down list, the notification type you selected is displayed. You can change the notification type, but the default notification name will remain. |
| Enable | To enable the notification, check Enable. This check box is checked by default. |
| Notification Name | Type a name for the notification. The name cannot contain spaces. |
| Time Period | Select a time period during which the notification will be enabled. The default is <ANYTIME>, meaning the notification will be valid at all times if Enable is checked. |
| Triggered by | Check the appropriate check boxes to configure the severity of the alert necessary to trigger the notification. |
| Community | Type a text string holding a value agreed upon between the manager and the agents that it manages. |
| Host Address | Type the host address provided by the SNMP system administrator. |
| Port | Type the port number provided by the SNMP system administrator. The default is port 162. |
| Caption | Type a brief description of the notification. |

5 On the Description tab, you can add a more detailed description than you typed on the General tab in the Caption text box.

6 Click **OK**.

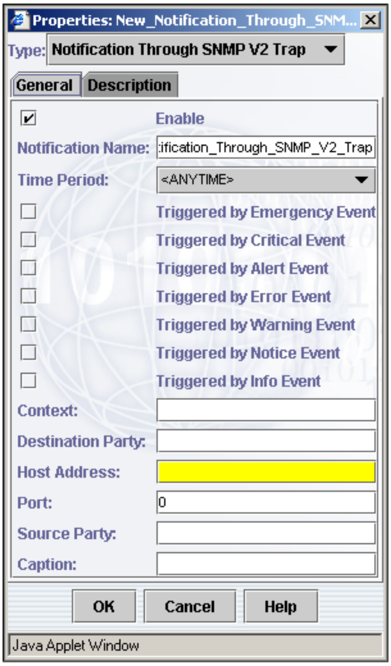
7 On the Notifications tab, click **Apply**.

8 On the Selection Menu, click Activate.
Your SNMP V1 notification is now configured for use.

### To configure an SNMP V2 notification

1 In the right pane, on the Notifications tab, click **New Notification > Notification Through SNMP V2 Trap**.

2 Click **Properties**.



Properties: New_Notification_Through_SNM...

Type: Notification Through SNMP V2 Trap

General | Description

☑ Enable

Notification Name: ification_Through_SNMP_V2_Trap

Time Period: <ANYTIME>

☐ Triggered by Emergency Event
☐ Triggered by Critical Event
☐ Triggered by Alert Event
☐ Triggered by Error Event
☐ Triggered by Warning Event
☐ Triggered by Notice Event
☐ Triggered by Info Event

Context:

Destination Party:

Host Address:

Port: 0

Source Party:

Caption:

3 In the Properties window, on the General tab, do the following:

Type
In this drop-down list, the notification type you selected is displayed. You can change the notification type, but the default notification name will remain.

Enable
To enable the notification, check **Enable**. This check box is checked by default.

Notification Name
Type a name for the notification. The name cannot contain spaces.

Time Period
Select a time period during which the notification will be enabled. The default is <ANYTIME>, meaning the notification will be valid at all times if Enable is checked.

Triggered by
Check the appropriate check boxes to trigger the notification with the desired severity of alert.

Context
Type the OID value provided by your network administrator. An OID is a sequence of integers separated by periods, such as 1.3.1.6.1.4.

| | |
|---|---|
| Destination Party | Type the destination party OID provided by the SNMP administrator. |
| Host Address | Type the IP address of the SNMP host. |
| Port | Type the port number provided by the SNMP system administrator. |
| Source Party | Type the source party OID provided by the SNMP administrator. |
| Caption | Type a brief description of the notification. |

4 On the Description tab, you can optionally add a more detailed description that you typed in the Caption text box.

5 Click **OK**.

6 On the Notifications tab, click **Apply**.

7 On the Selection Menu, click **Activate**.
Your SNMP V2 notification is now configured for use.

Section 4

# Appendices

This section includes the following topics:

Appendix A

# Advanced system settings

This chapter includes the following topics:

- Advanced policy system parameters
- Advanced location system parameters

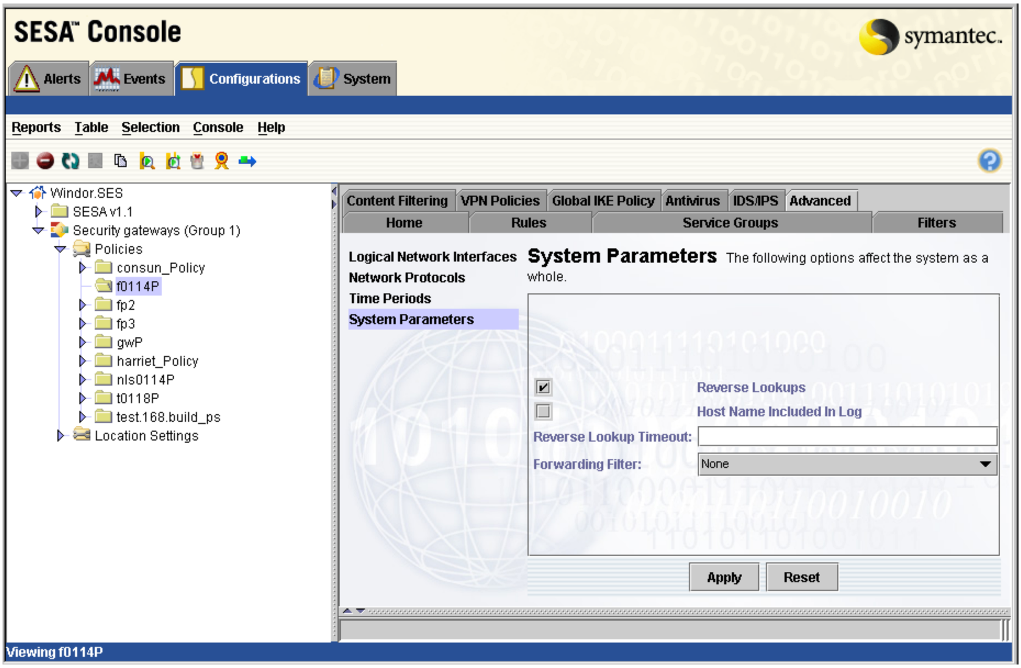
## Advanced policy system parameters

The Advanced policy system parameters lets you configure the following security gateway features:

- Enabling reverse lookups
- Including host names in log files
- Configuring reverse lookup timeout
- Configuring a forwarding filter

**To configure Advanced Policy system parameters**

1 In the SESA Console, in the left pane, click **Policies**.



System Parameters The following options affect the system as a whole.

☑ Reverse Lookups

□ Host Name Included In Log

Reverse Lookup Timeout:

Forwarding Filter: None

Viewing f0114P

2 In the right pane, on the Advanced tab, click **System Parameters**.

3 In the System Parameters window, you can:

- Enabling reverse lookups
- Including host names in log files
- Configuring reverse lookup timeout
- Configuring a forwarding filter

## Enabling reverse lookups

When the security gateway's secure proxies look up a host name for an IP address, it is referred to as a reverse lookup. The secure proxies perform reverse lookups to prevent untrusted sites from pretending to be associated with trusted host names.

Reverse lookups are enabled by default. They should be enabled if you are using Domain network entities. Otherwise, they can be disabled. Leaving them enabled can adversely affect system performance if your domain name service is setup incorrectly or is slow.

### To enable reverse lookups

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Advanced tab, click **System Parameters**.
3. In the System Parameters window, to enable reverse lookups, check **Reverse Lookups**.
4. Click **Apply**.
5. On the Selection Menu, click **Activate**.
   Reverse lookups are now enabled.

## Including host names in log files

This feature lets you control whether the source and destination of each connection through the security gateway are logged as IP addresses or as both IP addresses and host names. By default, this feature is disabled and only IP addresses are logged. Having this feature disabled reduces the size of your log files.

### To enable the logging of host names

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Advanced tab, click **System Parameters**.
3. In the System Parameters window, to enable logging of host names, check **Host Name Included In Log**.
   This check box is unchecked by default.
4. Click **Apply**.
5. On the Selection Menu, click **Activate**.
   Logging of host names is now enabled.

## Configuring reverse lookup timeout

The reverse lookup timeout value controls whether slow name-to-address or address-to-name lookups are logged. This can be useful when trying to determine the reason for poor system performance. The value is in seconds. There is no default. A timeout value of 0 disables the logging.

### To configure the reverse lookup timeout value

1. In the SESA Console, in the left pane, click **Policies**.
2. In the right pane, on the Advanced tab, click **System Parameters**.

3 In the System Parameters window, in the Reverse Lookup Timeout text box, type a timeout value in seconds.
Any lookup that takes longer than this value will be logged. A value of 0 disables logging.

4 Click **Apply**.

5 On the Selection Menu, click **Activate**.
Logging of slow lookups is now enabled.

## Configuring a forwarding filter

A forwarding filter is a filter you configure and apply to all incoming and outgoing packets arriving at a given interface. If a packet matches the chosen filter, it is not sent up the protocol stack for authentication. Instead, it is allowed through the interface, bypassing normal security checks.

**Note:** A forwarding filter provides no security for your internal network.

This feature is useful in cases when you want to allow a service through the system that cannot be handled by one of the proxies. However, if possible, it is recommended that you use a GSP rather than a forwarding filter.

### To configure a forwarding filter

1 In the SESA Console, in the left pane, click **Policies**.

2 In the right pane, on the Advanced tab, click **System Parameters**.

3 In the System Parameters window, in the Forwarding Filter drop-down list, select a forwarding filter.
The options are Sample_Denial-of-Service_Filter, None, and any filters you have pre-configured. The default is None.

4 Click **Apply**.

# Advanced location system parameters

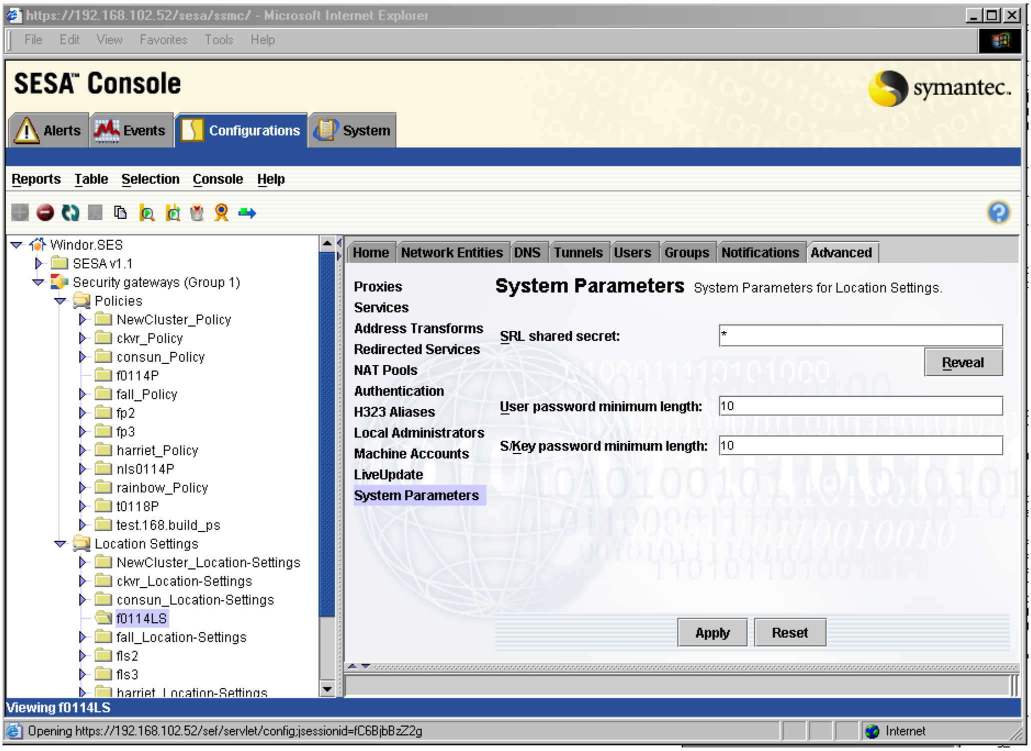
The Advanced location system parameters window lets you specify the Secure Remote login (SRL), shared secret and minimum lengths of the user and S/Key passwords.

SRL is a command-line utility that you can use to remotely connect to and manage the security gateway. The security gateway has the SRL daemon pre-installed for this purpose. An SRL user must supply the shared secret configured here in order to access the security gateway.

### To configure advanced location system parameters

1 In the SESA Console, in the left pane, click **Location Settings**.

2 In the right pane, on the Advanced tab, click **System Parameters.**



System Parameters System Parameters for Location Settings.

SRL shared secret: *

User password minimum length: 10

S/Key password minimum length: 10

3 In the SRL shared secret text box, type the Secure Remote Login (SRL) shared secret.
The shared secret appears as a string of asterisks. To view the shared secret in the text box, click **Reveal**. The button then changes to a Hide button.

4 In the User password minimum length text box, type the minimum number of characters the user password must include.

The default is 10 characters. This value must be at least 8 characters.

5 In the S/Key password minimum length text box, type the minimum number of characters the S/Key password must include.

The default is 10 characters. This value must be at least 10 characters.

6 Click **Apply**.

7 On the Selection Menu, click **Activate.**

The Advanced System Location parameters are now configured for use.

Appendix B

# Joining security gateways to SESA

This chapter includes the following topics:

## About joining SESA

To join SESA, you run the Join SESA Wizard on the local security gateway, using the Security Gateway Management Interface (SGMI). The Join SESA Wizard runs on the connecting security gateway only. As the local administrator, you must also have administrative privileges on the SESA Manager to use the Join SESA Wizard.

**Note:** The procedures for connecting your existing stand-alone or clustered security gateways to the SESA Manager assume that the SESA environment is established, and that your security gateways are already configured.

The Join SESA Wizard performs the following tasks:

- Installs the SESA Agent on the security gateway.
  The SESA Manager requires that each connecting security gateway have a SESA Agent running.
- Registers the SESA Agent with the SESA Manager.
- Exports local configuration to the SESA Manager, if you select that option.
- Instructs the SESA Manager to associate the exported configuration with the local security gateway.
- Validates the local policy and location settings if they are being exported to the SESA Manager.
- Downloads policy and location settings associated with an organizational unit if you select that option.
- Instructs the SESA Manager to assign the validated configuration with the local security gateway.

Instructions for joining SESA are also provided in the following:

- *Symantec Enterprise Firewall Administrator's Guide*, the *Symantec Gateway Security 5400 Series Administrator's Guide*
- *Symantec Advanced Manager for Security Gateways (Group1) and Symantec Event Manager for Security Gateways (Group1) Administrator's Guide*.

They are mirrored here so that SESA administrators can assist you in joining SESA.

# Preparing to join SESA

Before you join a security gateway to SESA, you must ensure that the required software is installed and configured.

- On the SESA Manager, install either the Symantec Advanced Manager for Security Gateways (for both configuration management and event management) or the Symantec Event Manager for Security Gateways (for event management only).
- Ensure that the security gateways that you want to manage or from which you want to collect events are installed.
- Configure each local security gateway.
- If you are joining multiple security gateways for centralized management, ensure that the network topology of all the security gateways is parallel.

## Configuring the local security gateway

To prepare to join a security gateway to SESA, you must do the following:

- Configure your security gateway.
  At a minimum, you must run the System Setup Wizard to complete the initial setup of your system interfaces.
  You can also configure the security gateway's policy and location settings. If you configure the local security gateway, you can export these settings as your initial configuration for management in SESA. For the easiest transition to advanced management, you should use this method.
- Apply all valid security gateway licenses.
  Symantec Advanced Manager requires that you remove the security gateway from the SESA environment in order to add or change security gateway licenses. If you add all security gateway licenses locally before you join SESA, it will save you time later.
- Configure local log settings.
  To get the level of reporting you want, you may need to configure SESA event gating on the security gateway. For example, some event manager reports are based on the statistics message, which is disabled by default.
- Back up your local configuration.

## Joining multiple security gateways to SESA for centralized management

In some circumstances, you can join multiple security gateways to SESA and use a single configuration to manage all of them. This means that the policies and location settings are identical for all security gateways.

The following are examples of when you could use this process:

- A corporation has multiple security gateways at a specific geographical location. These security gateways cannot be clustered because they are not identical systems.
  Configurations could include one primary security gateway and one back up, or two primaries and one backup. Identical configurations on both security gateways provide for redundancy so that the perimeter is not left insecure if the primary security gateway is not available.
- A corporation that uses SESA has a very large LAN or WAN, where identical subnet access is available by way of multiple security gateways.
  This organization has a master DNS table that works across all security gateways.

If you are joining multiple security gateways for centralized management, you must meet these additional prerequisites:

- Ensure that the number of network interfaces is identical.
- Configure the logical network interfaces to be named the same on each security gateway.

  Generally, policies reference logical network interface names, and if they do not match on each security gateway, the validation fails.
- Configure network entities the same.

If you are joining your security gateways for scalable management, you should also identify how your security gateways will be logically grouped (region, organization, and so on) and determine that they can share both the same policy and location settings.

# Joining SESA

Joining SESA lets you configure your security gateways from the SESA Console.

Before you join SESA:

- Determine the join SESA option that you will use.
- For all options, contact your SESA administrator for the following information, which you will need to complete the wizard:
  - SESA Manager IP address or fully qualified domain name
  - Thumbprint of the SESA Manager’s certificate
  - SESA logon name
  - SESA password

## Determining your options for joining SESA

There are multiple options for joining a security gateway to SESA. The option you use depends on the product that you have installed to integrate your security gateway with SESA, how you will manage the security gateway from SESA, and the part the security gateway plays in your overall security strategy.

**Table B-1** Options for joining SESA

| Type of SESA management | Security Gateway configuration option | Description |
|---|---|---|
| Configuration and event management<br>Requires Symantec Advanced Manager for Security Gateways. | Export Local Configuration and Associate with Firewall | When you join a single, non-clustered security gateway to SESA, this option pushes the security gateways policy and location settings to SESA, where they are automatically associated with the security gateway.<br>You should use this option if you are new to security gateway management through SESA.<br>See "Exporting the local security gateway configuration to SESA" on page 400. |
| | Use selected organizational unit configurations | This option lets you select an organizational unit and import the policy and location settings that are associated with it to the local security gateway.<br>This overwrites the policy and location settings on the local security gateway.<br>To use this option, your network resources must be parallel to those defined in the location settings you will import.<br>See "Importing an existing policy and location settings from SESA" on page 404. |
| Cluster management<br>Requires Symantec Advanced Manager for Security Gateways | Cluster Configuration panel | When you join a cluster member to SESA, this option lets you specify the organizational unit that will represent the cluster in SESA.<br>The policy and location settings of the cluster member are automatically associated with the organizational unit.<br>Other cluster members are automatically joined to SESA using the same organizational unit and configurations.<br>See "Joining a cluster to SESA" on page 407. |

**Table B-1** Options for joining SESA (Continued)

| Type of SESA management | Security Gateway configuration option | Description |
|---|---|---|
| Event management only<br>Use Symantec Event Manager for Security Gateways or Symantec Event Manager for Security Gateways | Not applicable.<br>When you join SESA for event management only, you cannot configure the security gateway from SESA. | This option lets you join individual and clustered security gateways to SESA for event management.<br>You use the SESA Console to view the events, and create alerts and reports.<br>See "Joining SESA for event management only" on page 412. |

# Exporting the local security gateway configuration to SESA

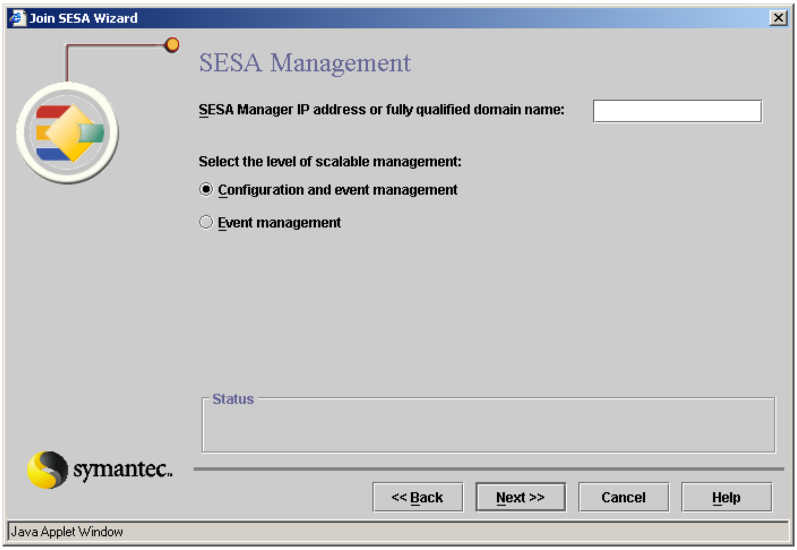
Use this procedure to join a single gateway to SESA and export its local configuration to SESA.

If you are new to using SESA to manage security gateways, this is the simplest way to connect a security gateway on the SESA Manager. It requires the least amount of preparation on the SESA Manager.

### To export the local security gateway to SESA

1 In the Security Gateway Management Interface, on the Action menu, click **Scalable Management > SESA Setup**.

2 In the Welcome to Join SESA Wizard panel, click **Next**.



SESA Management

SESA Manager IP address or fully qualified domain name:

Select the level of scalable management:

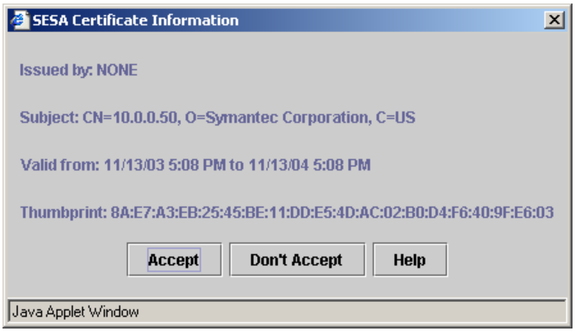
● Configuration and event management

○ Event management

Status

3 In the SESA Management panel, do the following:

- In the SESA Manager IP Address text box, type the IP address or fully qualified domain name of the SESA Manager.
- To manage your security gateway with SESA, click **Configuration and event management**.
- Click **Next**.



SESA Certificate Information

Issued by: NONE

Subject: CN=10.0.0.50, O=Symantec Corporation, C=US

Valid from: 11/13/03 5:08 PM to 11/13/04 5:08 PM

Thumbprint: 8A:E7:A3:EB:25:45:BE:11:DD:E5:4D:AC:02:B0:D4:F6:40:9F:E6:03

4 In the SESA Certificate Information dialog box, do the following:

- Verify that the certificate matches the thumbprint of the SESA Manager's certificate.
- Click **Accept**.

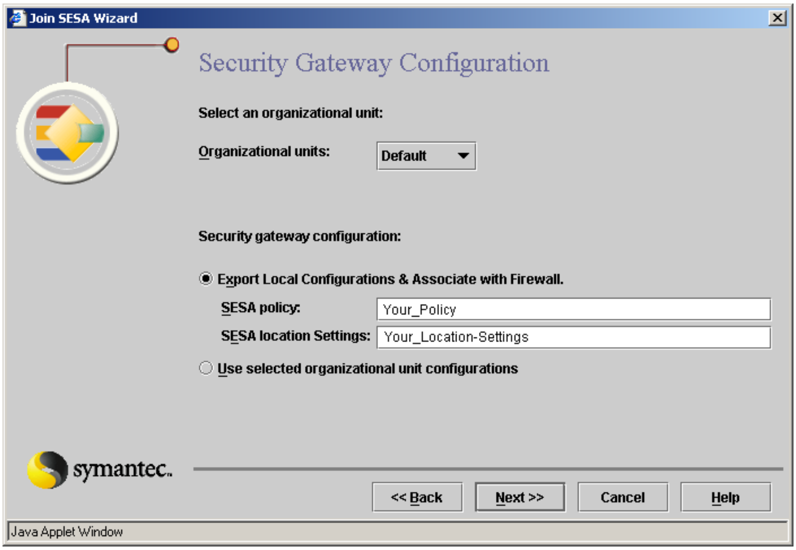
5 In the SESA Log On dialog box, do the following:

- In the Logon name text box, type your SESA logon name.
- In the Password text box, type your SESA logon password.

6 Click **Next**.

The wizard uses the SESA logon information to establish a session with the selected SESA Manager.

When the connection is established, the Security Gateway Configuration panel is displayed.



Security Gateway Configuration

Select an organizational unit:

Organizational units: Default

Security gateway configuration:

● Export Local Configurations & Associate with Firewall.

SESA policy: Your_Policy

SESA location Settings: Your_Location-Settings

○ Use selected organizational unit configurations

If the connection fails, the wizard prompts you again for the logon credentials. The wizard lets you try three times before aborting. If the login fails three times, you must run the wizard again to connect.

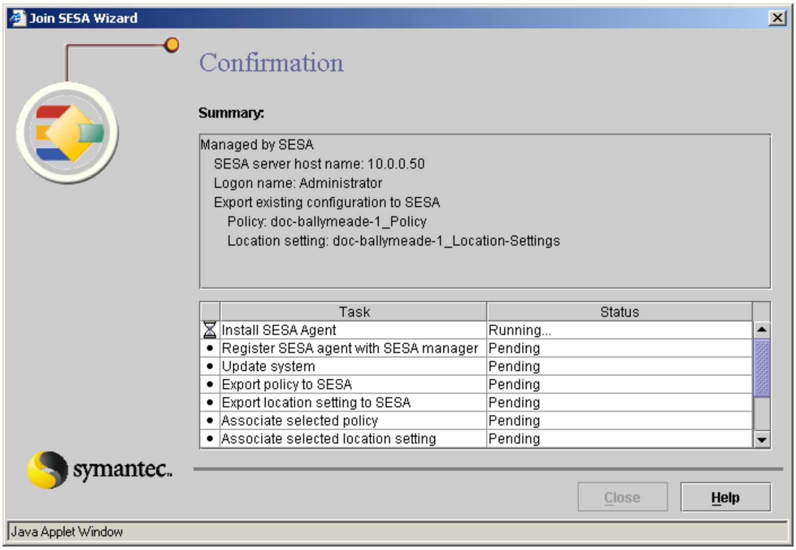
7 In the Security Gateway Configurations panel, do the following:

| | |
|---|---|
| Organizational units | From the drop-down list, select an organizational unit.<br>If no organizational units have been created in SESA, select Default or Managers. |
| Export Local Configuration and Associate with Firewall | Select this option to export your local configuration to SESA. |

| | |
|---|---|
| SESA Policy | Type a unique name under which your local policy will be stored in SESA.<br>Spaces are not allowed. If you enter a name that is already in use, you are warned of the conflict. |
| SESA Location Settings | Type a unique name under which your local location settings will be stored in SESA.<br>Spaces are not allowed. If you enter a name that is already in use, you are warned of the conflict. |

8 Click **Next**.

9 In the Confirmation panel, click **Finish**.



Summary:

Managed by SESA
  SESA server host name: 10.0.0.50
  Logon name: Administrator
  Export existing configuration to SESA
    Policy: doc-ballymeade-1_Policy
    Location setting: doc-ballymeade-1_Location-Settings

| | Task | Status |
|---|---|---|
| ⌛ | Install SESA Agent | Running... |
| ● | Register SESA agent with SESA manager | Pending |
| ● | Update system | Pending |
| ● | Export policy to SESA | Pending |
| ● | Export location setting to SESA | Pending |
| ● | Associate selected policy | Pending |
| ● | Associate selected location setting | Pending |

The Task and Status columns show the progress of the Join SESA Wizard. When all steps are completed, the Finish button changes to a Close button.

10 Click **Close**.

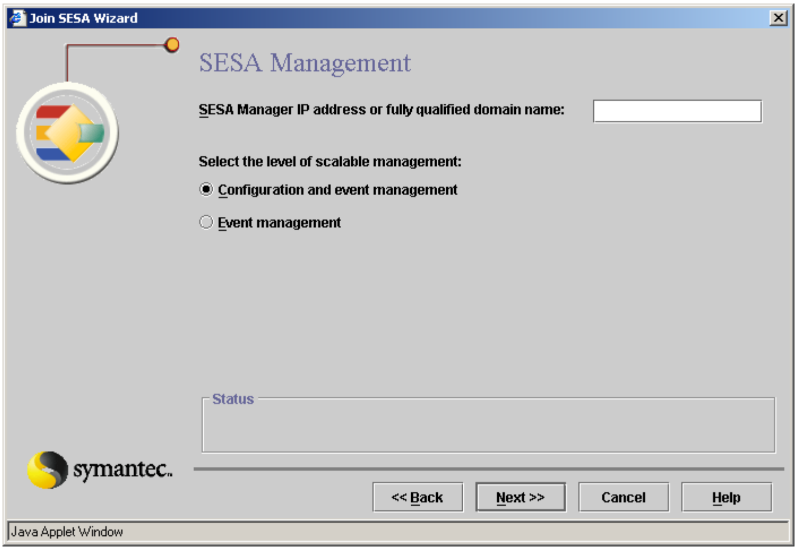
## Importing an existing policy and location settings from SESA

Use this procedure when you want the security gateway that you are joining to SESA to inherit the policy and location settings that are associated with an organizational unit in SESA.

To use this option, the network topology of the local security gateway must be parallel to the network topology represented by the location settings that are associated with the organizational unit.

### To import an existing policy and location settings from SESA

1. In the Security Gateway Management Interface, on the Action menu, click **Scalable Management > SESA Setup**.
2. In the Welcome to Join SESA Wizard panel, click **Next**.



SESA Management

SESA Manager IP address or fully qualified domain name:

Select the level of scalable management:

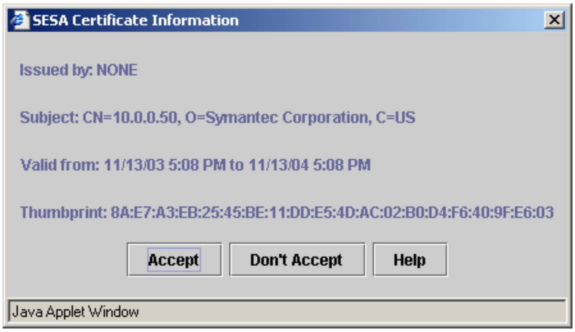
● Configuration and event management

○ Event management

Status

3. In the SESA Management panel, do the following:
   - In the SESA Manager IP Address text box, type the IP address or fully qualified domain name of the SESA Manager.
   - To manage your security gateway with SESA, click **Configuration and event management**.

- Click **Next**.



SESA Certificate Information

Issued by: NONE

Subject: CN=10.0.0.50, O=Symantec Corporation, C=US

Valid from: 11/13/03 5:08 PM to 11/13/04 5:08 PM

Thumbprint: 8A:E7:A3:EB:25:45:BE:11:DD:E5:4D:AC:02:B0:D4:F6:40:9F:E6:03

4 In the SESA Certificate Information dialog box, do the following:

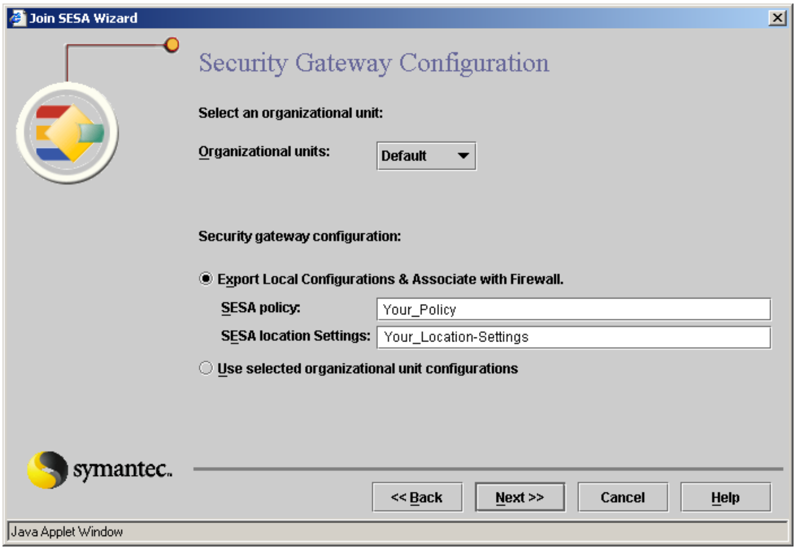
- Verify that the certificate matches the thumbprint of the SESA Manager’s certificate.
- Click **Accept**.

5 In the SESA Log On dialog box, do the following:

- In the Logon name text box, type your SESA logon name.
- In the Password text box, type your SESA logon password.

6 Click **Next**.
The wizard uses the SESA logon information to establish a session with the selected SESA Manager.

When the connection is established, the Security Gateway Configuration panel is displayed.



Security Gateway Configuration

Select an organizational unit:

Organizational units: Default

Security gateway configuration:

● Export Local Configurations & Associate with Firewall.

SESA policy: Your_Policy

SESA location Settings: Your_Location-Settings

○ Use selected organizational unit configurations

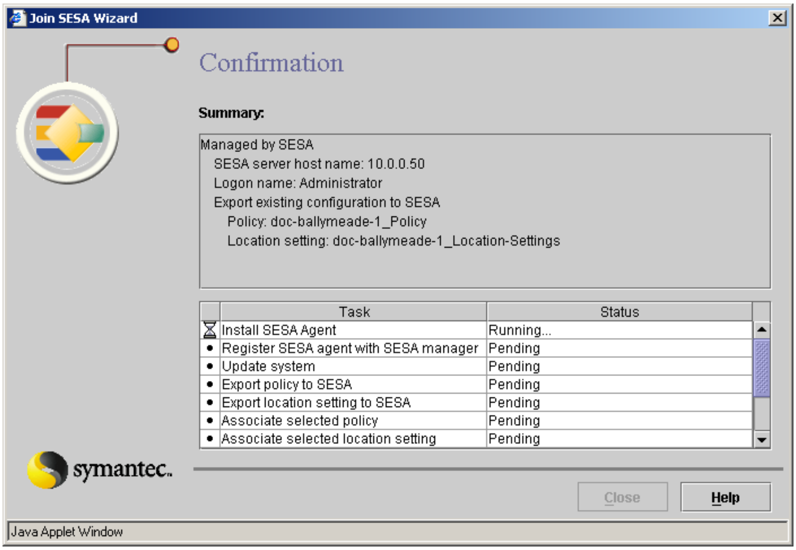
If the connection fails, the wizard prompts you again for the logon credentials. The wizard lets you try three times before aborting. If the login fails three times, you must run the wizard again to connect.

7 In the Security Gateway Configurations panel, do the following:

| | |
|---|---|
| Organizational units | From the drop-down list, select the organizational unit from which you want to import the configuration. |
| Use selected organizational unit configuration | Select this option to import the policy and location settings that are associated with the organizational unit.<br>Warning: Using an organizational unit's configuration overwrites your current policy and location settings on the local security gateway, including DNS settings. |

8 Click **Next**.

9 In the Confirmation panel, click **Finish**.



Summary:

Managed by SESA
SESA server host name: 10.0.0.50
Logon name: Administrator
Export existing configuration to SESA
Policy: doc-ballymeade-1_Policy
Location setting: doc-ballymeade-1_Location-Settings

| | Task | Status |
|---|---|---|
| ⌛ | Install SESA Agent | Running... |
| ● | Register SESA agent with SESA manager | Pending |
| ● | Update system | Pending |
| ● | Export policy to SESA | Pending |
| ● | Export location setting to SESA | Pending |
| ● | Associate selected policy | Pending |
| ● | Associate selected location setting | Pending |

The Task and Status columns show the progress of the Join SESA Wizard. When all steps are completed, the Finish button changes to a Close button.

10 Click **Close**.

## Joining a cluster to SESA

Security gateway clusters are created locally by running the Cluster Wizard using SGMI. When you join a member of a cluster to SESA, you assign it to a single organizational unit. The cluster’s organizational unit name defaults to the local cluster name. All other members of the cluster are automatically joined to SESA when the first member joins.

The cluster behaves like any other organizational unit except that before you make any changes to its membership, the members of the cluster must leave SESA first. After the cluster members have left SESA, you can change cluster membership using the SGMI. Once the changes are made to the cluster membership, you can rejoin the cluster to SESA.

## Join a cluster to SESA

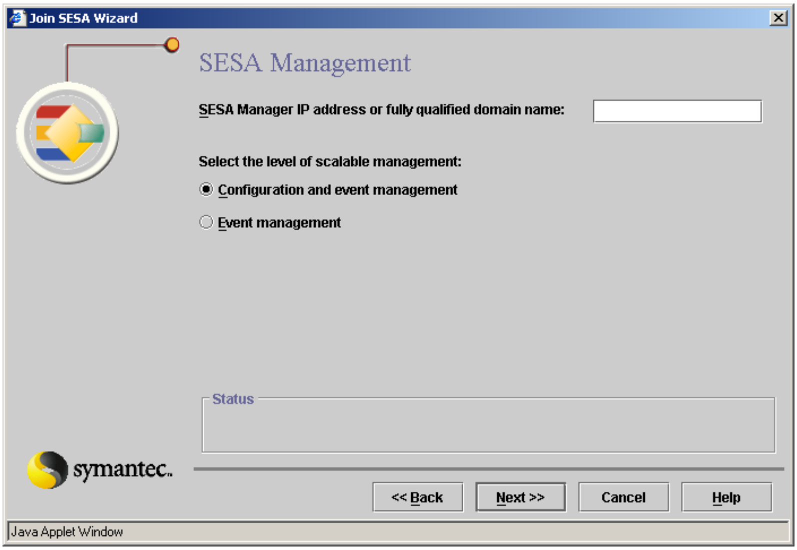
Joining a cluster member to SESA exports the cluster's policy and location settings to an organizational unit in SESA.

When a single node of the cluster joins SESA, all other nodes in the cluster automatically join and inherit the policy and location settings that are associated with the organizational unit.

After you join a cluster to SESA, you can change the organizational unit to which the cluster members belong.

### To join a cluster to SESA

1. In the Security Gateway Management Interface, on the Action menu, click **Scalable Management > SESA Setup**.
2. In the Welcome to Join SESA Wizard panel, click **Next**.



Join SESA Wizard

SESA Management

SESA Manager IP address or fully qualified domain name:

Select the level of scalable management:

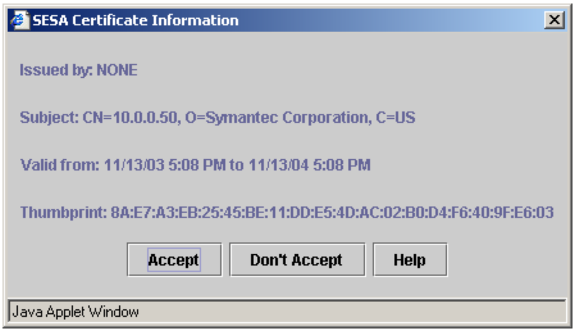
● Configuration and event management

○ Event management

Status

3. In the SESA Management panel, do the following:
   - In the SESA Manager IP Address text box, type the IP address or fully qualified domain name of the SESA Manager.

- To manage your cluster with SESA, click **Configuration and event management**.
- Click **Next**.



Issued by: NONE

Subject: CN=10.0.0.50, O=Symantec Corporation, C=US

Valid from: 11/13/03 5:08 PM to 11/13/04 5:08 PM

Thumbprint: 8A:E7:A3:EB:25:45:BE:11:DD:E5:4D:AC:02:B0:D4:F6:40:9F:E6:03

4 In the SESA Certificate Information dialog box, do the following:

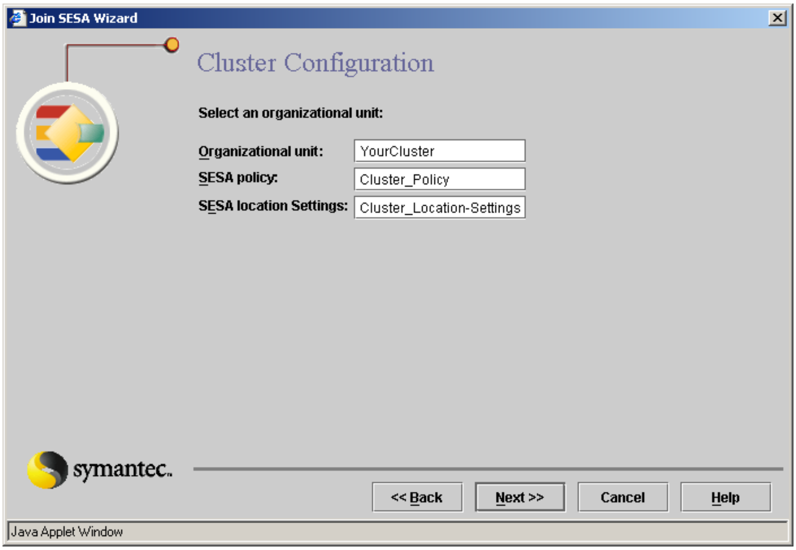
- Verify that the certificate matches the thumbprint of the SESA Manager’s certificate.
- Click **Accept**.

5 In the SESA Log On dialog box, do the following:

- In the Logon name text box, type your SESA logon name.
- In the Password text box, type your SESA logon password.

6 Click **Next**.
The wizard uses the SESA logon information to establish a session with the selected SESA Manager.

If the connection fails, the wizard prompts you again for the logon credentials. The wizard lets you try three times before aborting. If the logon fails three times, you must run the wizard again to connect.



Select an organizational unit:

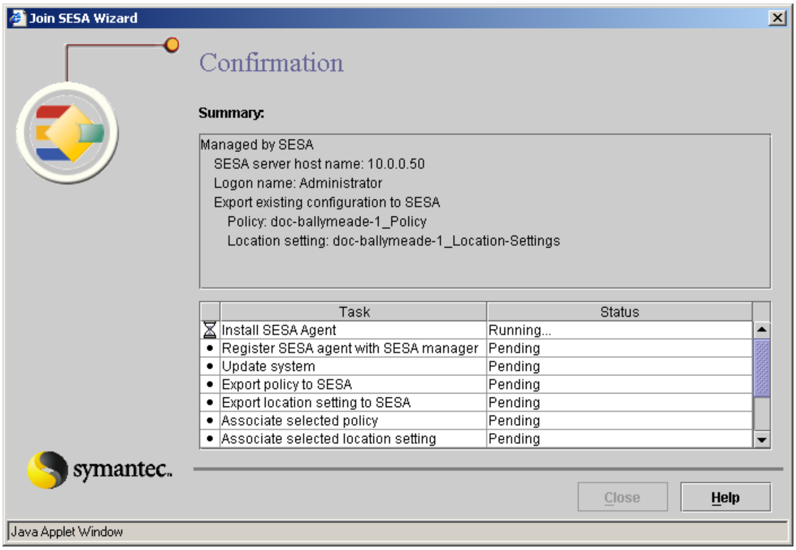
Organizational unit: YourCluster
SESA policy: Cluster_Policy
SESA location Settings: Cluster_Location-Settings

7 In the Cluster Configurations panel, do the following:

| | |
|---|---|
| Organizational unit | Specifies the name of the cluster, based on the current name of the cluster.<br>You can specify another name |
| SESA Policy | Type a unique name under which the cluster policy will be stored in SESA.<br>Spaces are not allowed. If you enter a name that is already in use, you are warned of the conflict. |
| SESA Location Settings | Type a unique name under which the cluster location settings will be stored in SESA.<br>Spaces are not allowed. If you enter a name that is already in use, you are warned of the conflict. |

8 Click **Next**.

9 In the Confirmation panel, click **Finish**.



Summary:

```
Managed by SESA
   SESA server host name: 10.0.0.50
   Logon name: Administrator
   Export existing configuration to SESA
      Policy: doc-ballymeade-1_Policy
      Location setting: doc-ballymeade-1_Location-Settings
```

| | Task | Status |
|---|---|---|
| ⌛ | Install SESA Agent | Running... |
| • | Register SESA agent with SESA manager | Pending |
| • | Update system | Pending |
| • | Export policy to SESA | Pending |
| • | Export location setting to SESA | Pending |
| • | Associate selected policy | Pending |
| • | Associate selected location setting | Pending |

The Task and Status columns show the progress of the Join SESA Wizard. When all steps are completed, the Finish button changes to a Close button.

10 Click **Close**.

### To change the name of the cluster's organizational unit after you join SESA

1 In the SESA Console, on the System view tab, create a new organizational unit.

2 On the Configuration view tab, right click **Security gateways (Group 1)** and then click **Show All Gateways**.

3 In the Show All Gateways dialog box, on the Organizational Units tab, select the new organizational unit, and then click **Associate**.

4 Use the Associate Wizard to associate the policy and location settings of the old organizational unit with the new organizational unit.

5 On the System view tab, move the computers that represent the cluster members to the new organizational unit.

## Joining SESA for event management only

Use this procedure if you want to join a single security gateway or a cluster of security gateways to SESA for the purpose of logging and reporting events only.

The security gateway machines are added to the Default organizational unit.

### To join SESA for event management only

1. On the Security Gateway Management Interface Action menu, click **Scalable Management** > **SESA Setup**.
2. In the Welcome to Join SESA Wizard panel, click **Next**.
3. In the SESA Management panel, do the following:
   - In the SESA Manager IP Address text box, type the IP address or fully qualified domain name of your SESA Manager.
   - Click **Event management**.
   - Click **Next**.
4. In the SESA Certificate Information dialog box, do the following:
   - Verify that the certificate matches the thumbprint of the SESA Manager's certificate.
   - Click **Accept**.
5. In the SESA Log On dialog box, do the following:
   - In the Logon name text box, type the SESA administrator's user name.
   - In the Password text box, type the SESA administrator's password.
   - Click **Next**.
6. In the Confirmation panel, review the information, and then click **Finish**.
   The Task and Status columns show the progress of the Join SESA Wizard. When the SESA Agent has finished installing, the Finish button changes to a Close button.
7. Click **Close**.

# Logging on to the SESA Console

Once your security gateway joins SESA, you log on to the SESA Console to begin managing the security gateway.

### To log on to the SESA Console

1. On your local security gateway system, or on the SESA Manager, open a browser window.
2. Browse to **https://<SESA manager IP address or domain name>/sesa/ssmc** where <SESA manager IP address or domain name> is the IP address or fully qualified domain name of your SESA manager.
3. In the Logon name text box, type the SESA administrator's user name.
4. In the Password text box, type the SESA administrator's password.
5. Click **Log On**.

# Troubleshooting problems when joining SESA

If the Join SESA Wizard fails, verify the following:

- Your information for connecting to SESA is correct.
  - IP address or domain name for the SESA Manager
  - SESA administrator user name and password
- You followed the appropriate scenario for the software you purchased.
  For example, if you purchased Symantec Event Manager only, you cannot join for Symantec Advanced Manager.
- If you are importing configurations, ensure that the location settings of your local security gateway are consistent with the location settings you are importing.
  If you join SESA by importing an existing configuration, the network topology of your local security gateway must be parallel to the network topology that is represented by the location settings of the imported configuration.
  When there is disparity, you can view the validation report in SESA to identify adjustments you must make so that the imported location settings work correctly with your security gateway.

In rare cases, the Join SESA Wizard succeeds but the security gateway does not appear to be joined to SESA. If either of the following occurs, reboot the local security gateway machine:

- If you log on to the SESA Console and do not see the security gateway as joined.
- If, in the SGMI, the homepage does not indicate that the security gateway has joined.

# Returning to local management

You must manage some aspects of security gateways locally. These include:

- Changing system settings such as network interfaces
- Installing security gateway licenses
- Joining new members to a cluster
- For Symantec Gateway Security 5400 appliances, changing hardware settings and making feature choices
- For Symantec Enterprise Firewall 8.0, uninstalling the firewall
- Backing up your security gateway

To make these local changes, you must return the security gateway to local management.

## Return to local management

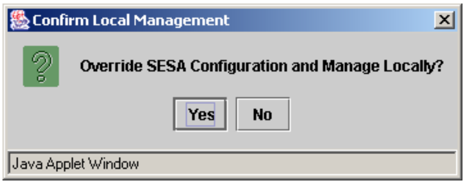
In the SGMI, two options on the Action menu, under Scalable Management, let you return to local management of your security gateway. Other options let you return to managing your security gateways from SESA.

**Table B-2** Options to return to local security gateway management

| Option to manage locally | Reason to use | Option to return to SESA management |
|---|---|---|
| Local management | Temporarily return to local management to make local changes. | SESA Management |
| Leave SESA | Completely remove the registration of the security gateway from SESA. | SESA Setup (runs the Join SESA Wizard) |

### To return to local management temporarily

1. On the local security gateway, in the Security Gateway Management Interface (SGMI), on the Action Menu, select **Scalable Management** > **Local management**.



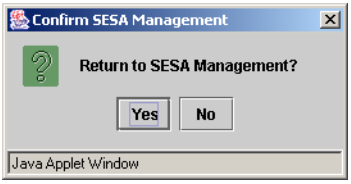
Confirm Local Management

Override SESA Configuration and Manage Locally?

2. In the Confirm Local Management dialog box, do one of the following:
   - To overwrite the configuration that is being managed in SESA and manage your policy and location settings locally, click **Yes**.
   - To remain joined to SESA for configuration management, click **No**.

### To return to SESA management after leaving temporarily

1. In the SGMI, on the Action Menu, select **Scalable Management** > **SESA management**.



Confirm SESA Management

Return to SESA Management?

2. In the Confirm Local Management message box, do one of the following:
   - To return to SESA management, click **Yes**.
   - To continue managing your security gateway locally, click **No**.

### To return to local management permanently

1. In the SGMI, on the Action Menu, select **Scalable Management** >**Leave SESA Management**.
2. In the Leave SESA dialog box, do the following

   :

| | |
|---|---|
| Logon Name | Type the SESA administrator’s user name. |
| Password | Type the SESA administrator’s password. |

3. Click **OK**.

4 If the local security gateway is a member of a cluster, do the following:

- In the SESA Console, on the System view tab, expand Organizational Units.
- Select the organizational unit that represented the cluster.
- On the Selection menu, click **Delete**.
- When you are prompted to confirm the deletion, click **Yes**.

### To return to SESA management after leaving permanently

1 In the SGMI, on the Action menu, click **Scalable Management > SESA Setup**.

2 In the Join SESA Wizard, choose the appropriate option for joining SESA, as described in “Joining SESA” on page 398.

# Troubleshooting

You can find up-to-date troubleshooting information for the Symantec security gateways (and all Symantec products) on the Symantec Web site at www.symantec.com.

## Online troubleshooting help

You can find up-to-date troubleshooting information for the Symantec security gateways (and all Symantec products) on the Symantec Web site, www.symantec.com.

Use the following procedure to access troubleshooting information from the Symantec Knowledge Base.

**To access Symantec security gateway troubleshooting information**

1. Go to www.symantec.com.
2. On the top of the home page, click **support.**
3. Under Product Support > enterprise, click **Continue.**
4. On the Support enterprise page, under Technical Support, click **knowledge base**.
5. Under select a knowledge base, scroll down and click **Symantec Enterprise Firewall**.
6. Click on your specific product name and version.
7. On the knowledge base page for Symantec Enterprise Firewall, do any of the following:
   - On the Hot Topics tab, click any of the items in the list to view a detailed list of knowledge base articles on that topic.

- On the Search tab, in the text box, type a string containing your question. Use the drop-down list to determine how the search is performed and click **Search**.
- On the Browse tab, expand a heading to see knowledge base articles related to that topic.

Appendix D

# Licensing

This chapter includes the following topics:

## Software licensing

Symantec Advanced Manager and Symantec Event Manager are optional products that integrate with Symantec Enterprise Security Architecture (SESA) to provide enterprise-wide scalable management, event logging, alerting and reporting. Licensing is by the number of Symantec Security Gateways managed or sending events to the SESA Manager. The minimum license provides services for up to five security gateways. An Advanced Manager license includes a license for Event Manager. You can purchase Event Manager licenses separately, although if Advanced Manager is licensed, you must have the same number of licenses for Event Manager. Licenses are available in 5, 25, 100, and unlimited increments.

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# Events

This chapter includes the following topics:

## About events

This appendix describes the security events (or log messages) that can be reported to the Symantec Enterprise Security Architecture (SESA) console for Symantec legacy products. Legacy products include:

- Symantec Enterprise Firewall, version 7.0
- Symantec Gateway Security version 1.0, models 5110, 5200, 5300, and 5310
- Symantec VelociRaptor version 1.5, models 1100, 1200, 1300, and 1310 (Also supports older VelociRaptor hardware models that have been upgraded to version 1.5 software.)
- Third-party products (requires separate purchase)

Appendix A, Log Messages in the *Symantec Security Gateways Reference Guide* lists all events/log messages that can be reported for natively SESA-managed security gateways (such as the Symantec Gateway Security 5400 series and the Symantec Enterprise Firewall). It indicates whether each event is never, sometimes, or always reported to the SESA console. A full description of each event is included with recommended workarounds if appropriate.

# How events are processed

In SESA, all events are a discrete instance of a class of similar events. An Event ID field indicates the exact instance. The Event Collector derives discrete event IDs and classifications by examining the contents of key fields. The table below lists the severities assigned to each log message by the Event Collector schema.

**Table E-1** Log message severities

| SESA severity | Log message numbers | Description |
|---|---|---|
| 1 - Informational | 100 and 200 | Log messages that represent expected behavior. |
| 2 - Warning | 300 | Log messages that represent suspicious behavior. |
| 3 - Minor | 400 | Log messages that merit future investigation. |
| 4 - Major | 500 | Log messages that should be investigated within a reasonable time frame. |
| 5 - Critical | 600 | Log messages that merit immediate investigation. |
| 6 - Fatal | 700 | Log messages that describe a fatal condition. |

# Event Listing

The following table lists all events processed by the Event Collector.

**Table E-2** Events processed by the Event Collector

| Event | Severity | Description |
|---|---|---|
| Application Start | 1 - Informational | The Event Collector is starting. |
| Application Stop | 1 - Informational | The Event Collector is stopping. |
| Connection Rejected | 1 - Informational | A connection attempt was rejected, with a response to the source host. |
| Maximum Connections from Host Reached | 4 - Major | A client has attempted to make more connections through the firewall than is allowed. |

**Table E-2** Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| Connection Denied | 1 - Informational | The client is attempting to make a connection that is not allowed through the firewall. |
| Invalid Host Name | 1 - Informational | A client is attempting to contact an invalid host. |
| Direct Connection Denied | 1 - Informational | A client has attempted to connect directly to the firewall; the connection has been denied. |
| External Connection Denied | 1 - Informational | A client has attempted to route an external connection through the firewall. |
| Restricted Site Denied | 1 - Informational | A client has attempted to contact a host to which access is denied. |
| Unauthorized User Logged Off | 2 - Warning | An unauthorized user has been logged off of the system. |
| User Authentication Failed | 2 - Warning | A user has failed to authenticate. This does not include VPN authentication. |
| Remote Management Connection | 1 - Informational | A new connection has been accepted from a remote host. |
| Management Connection Denied | 4 - Major | A new connection to the firewall was attempted, but access was denied. |
| Possible Attack | | A possible attack has been detected. |
| IP Invalid Spoofed Address | 1 - Informational | The firewall has dropped a packet because it may contain a spoofed IP address. |
| Possible IP Spoof MAC Lookup | 4 - Major | The firewall has dropped a connection because the host's Ethernet address does not match the Ethernet address for that host in the firewall's configuration file. This could indicate that a machine is spoofing the IP address of another machine. |
| Possible IP Spoof MAC Lookup Failed | 2 - Warning | The firewall was unable to verify the Ethernet address of a host on the network. This could indicate that the host is using a spoofed source IP address. |

Table E-2 Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| Possible IP Spoof Reverse Lookup | 2 - Warning<br>4 - Major | The firewall has dropped a connection with a host after a DNS lookup determined that the host may be using a spoofed source IP address. |
| Suspicious NNTP Article | 1 - Informational | The firewall has detected a malformed news (NNTP) article. This could indicate an attempt by a malicious user to crash a news (NNTP) server. |
| Unrecognized NNTP Response | 1 - Informational | The firewall has detected that a news (NNTP) server is sending unusual responses to a user. This could indicate that a malicious user has gained control of the server and is issuing arbitrary commands. |
| Unsupported NNTP Command | 1 - Informational | The firewall has detected that a user is sending unrecognized commands to a news (NNTP) server. This could indicate an attempt by a malicious user to execute arbitrary commands on the server. |
| Port Scan | 2 - Warning | A port scan has been detected on the network. Generated by the Event Collector when the number of failed connections, from a single IP source, exceeds a defined threshold within a defined period of time. |
| SCAN Nmap | 1 - Informational | A scan from the Nmap network scanner has been detected. |
| SCAN Queso | 1 - Informational | A scan from the Queso scanning tool has been detected. This tool will reveal the operating system and version by inspecting the TCP stack. |
| Multiple Outbound Ping Packets Detected | 1 - Informational | The firewall has detected several ping packets (from either and internal or external host). This could indicate that a user is attempting to ping the firewall or a host on the other side of the firewall. If from an external host, this could indicate that a malicious user is performing a reconnaissance attack against the network. |

**Table E-2** Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| Multiple Outbound Ping Packets Dropped | 1 - Informational | The firewall has dropped several ping packets (from either an internal or an external host). This could indicate that a user is attempting to ping the firewall or a host on the other side of the firewall. If from an external host, this could indicate that a malicious user is performing a reconnaissance attack against the network. |
| Multiple Inbound Ping Packets Detected | 1 - Informational | The firewall has detected several ping packets (from either and internal or external host). This could indicate that a user is attempting to ping the firewall or a host on the other side of the firewall. If from an external host, this could indicate that a malicious user is performing a reconnaissance attack against the network. |
| Multiple Inbound Ping Packets Dropped | 1 - Informational | The firewall has dropped several ping packets (from either an internal or an external host). This could indicate that a user is attempting to ping the firewall or a host on the other side of the firewall. If from an external host, this could indicate that a malicious user is performing a reconnaissance attack against the network. |
| Multiple Internal Ping Packets Dropped | 1 - Informational | The firewall has dropped several ping packets (from either an internal or an external host). This could indicate that a user is attempting to ping the firewall or a host on the other side of the firewall. If from an external host, this could indicate that a malicious user is performing a reconnaissance attack against the network. |
| Firewall Multiple Login Failures | 2 - Warning | The firewall has detected several closely-spaced failed attempts to log into the firewall.<br>**Note:** This event is generated only if you have set ROLLUP_FAILED_LOGINS to a setting greater than 1.<br>If you configure the Event Collector to process this event, you will not individual User Authentication Failed events.<br>See "Modifying DE_FirstPass.rule (optional)" on page 435. |

**Table E-2** Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| Port Sweep | 1 - Informational | A port sweep has been detected. A single host has attempted to connect to a single port on more than a user-configured number of hosts within a user-configured time period (in seconds).<br>**Note:** This event is not generated by default by the security gateway. If you suspect port sweeps, you can enable this event to further isolate the problem. |
| Bad TCP Flags | 1 - Informational | A packet was received whose Flags field in the TCP header contains an invalid combinations of flags set. This usually happens due to an attack. |
| Connection Statistics | 1 - Informational | Indicates a statistics record.<br>**Note:** This event is not generated by default by the security gateway due to the heavy load caused by logging statistical events. If desired, you can enable statistical reporting.<br>See "Modifying DE_FirstPass.rule (optional)" on page 435. |
| System Error | 3 - Minor | The firewall has reported a system error. |
| Critical System Error | 5 - Critical | The firewall has reported a critical system error. |
| Fatal System Error | 6 - Fatal | The firewall has reported a fatal system error. |
| Unauthorized Process Killed | 4 - Major | Indicates that the Vulture daemon has terminated a process that is not authorized to run on the firewall. |
| DNS Lookup Failed | 1 - Informational | A DNS request sent to the firewall has failed. This could indicate that the DNS server contacted by the firewall is unavailable. |
| DNS Lookup Refused | 1 - Informational | A DNS request to the firewall was refused. This could indicate an attempt by an external user to obtain the names of internal hosts. |

**Table E-2** Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| ICMP Host Unreachable | 1 - Informational | The firewall has sent an ICMP Host Unreachable Packet. A host is restricted unless the firewall has been instructed to forward connections made to that host. |
| ICMP Port Unreachable | 1 - Informational | The firewall has sent an ICMP Port Unreachable Packet in response to a connection to a restricted port. A firewall port is restricted unless the firewall has been instructed to forward connections made to that port. |
| Packet Dropped | 1 - Informational | A packet has been dropped by the firewall. This could indicate that an external host is attempting to gain unauthorized access to an internal host, or that an internal host is attempting to gain unauthorized access to an external host. |
| Ping Packet Detected | 1 - Informational | The firewall has detected a ping packet. This could indicate that a malicious user is performing a reconnaissance attack against the network. |
| Ping Packet Dropped | 1 - Informational | The firewall has dropped a ping packet. This could indicate that a malicious user is performing a reconnaissance attack against the network. |
| FTP Event | 2 - Warning | Indicates a denied FTP operation. |
| Get Denied | 2 - Warning | A GET command to an FTP server has been denied. This command is used to download files from an FTP server. Denied list may also be logged as this event. |
| FTP Put Denied | 2 - Warning | A PUT command to an FTP server has been denied. This command is used to upload files to an FTP server. |
| Zone Transfer Denied | 2 - Warning | A DNS zone transfer has been denied. |
| Connection Failed | 1 - Informational | Although the connection was allowed, a connection to the destination host/port could not be made. |

**Table E-2** Events processed by the Event Collector (Continued)

| Event | Severity | Description |
|---|---|---|
| Management Connection Completed | 1 - Informational | A management connection to the firewall has been completed. |
| Direct Connection Completed | 1 - Informational | A direct connection to the firewall has been completed successfully. This could indicate an attempt by a malicious user to scan the firewall for available ports or gain unauthorized access to a service running on the firewall or on the internal network. |

# Customizing Symantec Event Manager for Firewall (legacy products)

This chapter includes the following topics:

## About customizing Symantec Event Manager for Firewall

In its base (default) configuration, the Symantec Event Manager for Firewall (required to manage Symantec legacy products in SESA) is designed to allow event collection and routing to the SESA Manager to occur with minimal impact to your network operations.

After installing the Symantec Event Manager for Firewall, you must edit the FirewallInformation.ini file to define internal/external network interfaces and all hosts that are authorized to access a monitored firewall. If this file is not edited, the Event Collector will not function properly.

Optionally, other configuration files can be changed to suit the needs of your environment. You can edit the Symantec Event Manager for Firewall's configuration to perform the following tasks:

- Enable statistical event reporting.
  See "Modifying DE_FirstPass.rule (optional)" on page 435.

- Run manually, during off-peak hours.
  See "Manually operating Symantec Event Manager for Firewall" on page 450.
- Monitor log files for multiple firewalls.
  See the *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide*.

**Note:** The information in this chapter applies only to the Symantec Event Manager for Firewall. The Symantec Event Manager for Security Gateways (Group 1) v2.0.1, which is used to manage Symantec security gateways with "native" or integrated SESA support, is fully configured when installed. Other than changing the definition of security events that are reported to SESA, no additional configuration or customizing is required. See the administrator's guide for your security gateway for more information on configuring the security gateway's Event Gating feature.

# Symantec Event Manager for Firewall configuration files

Symantec Event Manager for Firewall includes four files, described in Table F-1, that let you customize the Event Manager for Firewall's configuration.

The configuration files are installed in the following locations:

- In Windows:
  C:\Program Files\Symantec\FWEventManager\
  KnowledgeBase\Firewalls\SEF\
- In Solaris:
  /opt/Symantec/FWEventManager/KnowledgeBase/Firewalls/SEF/

**Table F-1** Symantec Event Manager configuration files

| File | Description |
|---|---|
| FirewallInformation.ini | Contains the following: communication parameters, internal/external interface definitions, proxy servers, TCP ports used for remote firewall administration, and a list of all remote hosts that are authorized to remotely manage a firewall. |

**Table F-1** Symantec Event Manager configuration files (Continued)

| File | Description |
|---|---|
| DE_FirstPass.rule | Contains rule definitions for the types of events that are reported to the Symantec Event Manager for Firewall.<br>The default settings in this file should suffice for most environments. Depending on the specific needs of your environment, however, you can edit rule definitions in this file to, for example, allow statistical events to be reported. |
| SEFLogSensor.ini | Built dynamically during installation and contains parameters that define each individual firewall that you want to monitor.<br>If you are configuring the Symantec Event Manager for Firewall to monitor multiple firewall log files, you must manually create additional SEFLogSensor.ini files for each firewall and enter the required firewall definitions. |
| RaptorExpert.ini | A single RaptorExpert.ini file is built dynamically during installation. It includes a sensor property record that corresponds to the SEFLogSensor.ini file.<br>If you are configuring the Symantec Event Manager for Firewall to monitor multiple firewall log files, you must edit the RaptorExpert.ini file to add a sensor entry for each firewall. |

## Modifying FirewallInformation.ini (required)

The FirewallInformation.ini file defines information about firewalls that are being monitored by the Symantec Event Manager for Firewall. Table F-2 describes all parameters and available settings in FirewallInformation.ini.

A single FirewallInformation.ini file is installed with the Symantec Event Manager for Firewall and must be edited to contain the internal/external network interfaces and all remote management hosts that are authorized to access each firewall.

See the *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide* for instructions.

**Table F-2** Description of FirewallInformation.ini configuration file and parameters

| Parameter | Value | Description |
|---|---|---|
| CommunicationParameters | AlertDest, IM | This parameter defines the registration name of the SESA Manager component that should receive alerts from this Event Collector. The default value is appropriate in most cases. |
| InternalInterfaces | User defined | The internal interface name of each firewall must be defined here. See *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide* for instructions. |
| ExternalInterfaces | User defined | Defines the external interface name of each firewall here. See *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide* for instructions. |
| Proxies | User defined | List any proxy servers that are visible to the firewall. These servers often produce false positives such as port scan alerts because of their high levels of network activity. The Event Collector rule set filters out such false positives originating from proxy servers identified here. |
| RemoteManagementPorts | User defined | Identify TCP ports used for remote administration of the firewall. The Event Collector uses this information to detect remote management activity. The default values are appropriate settings in most cases. |

**Table F-2** Description of FirewallInformation.ini configuration file and parameters (Continued)

| Parameter | Value | Description |
|---|---|---|
| RemoteManagementHosts | User defined | Identify all hosts that are authorized to remotely manage this firewall for log retrieval. The hosts are identified by IP address. The format of this row is:<br>RemoteManagementHosts,Host1,Host2... Hostn<br>You may enter as many interfaces as is necessary.<br>See *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide* for instructions. |

## Modifying DE_FirstPass.rule (optional)

The DE_FirstPass.rule file contains rule definitions for the types of events that are reported to SESA. Tables 14-3, 14-4, 14-5, and 14-6 describe the rules and values in the DE_FirstPass.rule file.

**Note:** In most cases, the default settings in DE_FirstPass.rule should be adequate. Depending on your environment however, you may want to change the types of events that are logged, for example, to enable statistical event reporting.

### Section 1: Successful Traffic Options

The parameters in this section define how the Event Collector processes successful traffic events. Successful traffic is defined as packets permitted through the security gateway by packet filtering firewalls, successful proxy connections established by proxy firewalls, and successful connection events reported by these proxies (such as FTP Get and Put commands).

For the Event Collector to process successful traffic, you must configure the firewall to log successful traffic activity. Please refer to the Symantec Security Gateway documentation for instructions on configuring the firewall to log successful traffic.

Because of the possible performance impact when logging statistical event data, statistical reporting is disabled by default when first installing the Event Manager for Firewall. To configure the Event Collector to log statistical data, set the following rules to True (enabled):

```
Assign REPORT_SUCCESSFUL_INBOUND_TRAFFIC True
Assign REPORT_SUCCESSFUL_OUTBOUND_TRAFFIC True
Assign REPORT_SUCCESSFUL_INTERNAL_TRAFFIC True
Assign REPORT_SUCCESSFUL_EXTERNAL_TRAFFIC True
```

**Note:** Due to the heavy network load caused by logging statistical data, you may want to consider processing log files during off-peak hours. This is done using batch files, supplied by Symantec, to manually start the Event Collector at a time of your choosing. See "Manually operating Symantec Event Manager for Firewall" on page 450.

**Table F-3** Section 1: Successful Traffic Options

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_SUCCESSFUL_INBOUND_TRAFFIC<br>REPORT_SUCCESSFUL_INBOUND_WWW_TRAFFIC<br>REPORT_SUCCESSFUL_INBOUND_TELNET_TRAFFIC<br>REPORT_SUCCESSFUL_INBOUND_FTP_TRAFFIC<br>REPORT_SUCCESSFUL_INBOUND_POP_TRAFFIC<br>REPORT_SUCCESSFUL_INBOUND_SMTP_TRAFFIC | True<br>False (default) | If this rule is enabled, all successful inbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as inbound if the traffic originated on an external firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether successful traffic over a number of popular protocols are reported to the SESA Manager. |

**Table F-3** Section 1: Successful Traffic Options (Continued)

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_SUCCESSFUL_OUTBOUND_TRAFFIC<br>REPORT_SUCCESSFUL_OUTBOUND_WWW_TRAFFIC<br>REPORT_SUCCESSFUL_OUTBOUND_TELNET_TRAFFIC<br>REPORT_SUCCESSFUL_OUTBOUND_FTP_TRAFFIC<br>REPORT_SUCCESSFUL_OUTBOUND_POP_TRAFFIC<br>REPORT_SUCCESSFUL_OUTBOUND_SMTP_TRAFFIC | True<br>False (default) | If this rule is enabled, all successful outbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as outbound if the traffic originated on an internal firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether successful traffic over a number of popular protocols are reported to the SESA Manager. |
| REPORT_SUCCESSFUL_INTERNAL_TRAFFIC<br>REPORT_SUCCESSFUL_INTERNAL_WWW_TRAFFIC<br>REPORT_SUCCESSFUL_INTERNAL_TELNET_TRAFFIC<br>REPORT_SUCCESSFUL_INTERNAL_FTP_TRAFFIC<br>REPORT_SUCCESSFUL_INTERNAL_POP_TRAFFIC<br>REPORT_SUCCESSFUL_INTERNAL_SMTP_TRAFFIC | True<br>False (default) | If this rule is enabled, all successful internal traffic through the firewall is reported to the SESA Manager. Traffic is defined as internal if the traffic originated on an internal firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether successful traffic over a number of popular protocols are reported to the SESA Manager. |

**Table F-3** Section 1: Successful Traffic Options (Continued)

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_SUCCESSFUL_EXTERNAL_TRAFFIC | True<br>False (default) | If this rule is enabled, all successful external traffic through the firewall is reported to the SESA Manager. Traffic is defined as external if the traffic originated on an external firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>This activity could indicate that an external host is attempting to use the firewall as a proxy to connect to another external host. |
| REPORT_SUCCESSFUL_UNKNOWN_TRAFFIC | True<br>False (default) | If this rule is enabled, all successful traffic of an unknown direction through the firewall is reported to the SESA Manager. Traffic is defined as unknown if the source interface is not included with the firewall event. |

## Section 2: Denied Traffic Options

The parameters in this section define how the Event Collector processes denied traffic events. Denied traffic is defined as packets denied by packet filtering firewalls, proxy connections denied by proxy firewalls, and denied connection events reported by these proxies (such as FTP Get and Put commands).

**Table F-4** Section 2: Denied Traffic Options

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_DENIED_INBOUND_TRAFFIC<br>REPORT_DENIED_INBOUND_WWW_TRAFFIC<br>REPORT_DENIED_INBOUND_TELNET_TRAFFIC<br>REPORT_DENIED_INBOUND_FTP_TRAFFIC<br>REPORT_DENIED_INBOUND_POP_TRAFFIC<br>REPORT_DENIED_INBOUND_SMTP_TRAFFIC | True (default)<br>False | If this rule is enabled, all denied inbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as inbound if the traffic originated on an external firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether denied traffic over a number of popular protocols are reported to the SESA Manager. |
| REPORT_DENIED_OUTBOUND_TRAFFIC<br>REPORT_DENIED_OUTBOUND_WWW_TRAFFIC<br>REPORT_DENIED_OUTBOUND_TELNET_TRAFFIC<br>REPORT_DENIED_OUTBOUND_FTP_TRAFFIC<br>REPORT_DENIED_OUTBOUND_POP_TRAFFIC<br>REPORT_DENIED_OUTBOUND_SMTP_TRAFFIC | True (default)<br>False | If this rule is enabled, all denied inbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as outbound if the traffic originated on an internal firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether denied traffic over a number of popular protocols are reported to the SESA Manager. |

**Table F-4** Section 2: Denied Traffic Options (Continued)

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_DENIED_INTERNAL_TRAFFIC<br>REPORT_DENIED_INTERNAL_WWW_TRAFFIC<br>REPORT_DENIED_INTERNAL_TELNET_TRAFFIC<br>REPORT_DENIED_INTERNAL_FTP_TRAFFIC<br>REPORT_DENIED_INTERNAL_POP_TRAFFIC<br>REPORT_DENIED_INTERNAL_SMTP_TRAFFIC | True (default)<br>False | If this rule is enabled, all denied internal traffic through the firewall is reported to the SESA Manager. Traffic is defined as internal if the traffic originated on an internal firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>If enabled, this rule includes several finer-grained rules that determine whether denied traffic over a number of popular protocols are reported to the SESA Manager. |
| REPORT_DENIED_EXTERNAL_TRAFFIC | True (default)<br>False | If this rule is enabled, all denied external traffic through the firewall is reported to the SESA Manager. Traffic is defined as external if the traffic originated on an external firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file.<br>This activity could indicate that an external host is attempting to use the firewall as a proxy to connect to another external host. |
| REPORT_DENIED_UNKNOWN_TRAFFIC | True (default)<br>False | If this rule is enabled, all denied traffic of an unknown direction through the firewall is reported to the SESA Manager. Traffic is defined as unknown if the source interface is not included with the firewall event. |

## Section 3: Failed Traffic Options

The parameters in this section define how the Event Collector processes failed traffic events. Failed traffic is defined as traffic that is permitted through the firewall but fails to establish or complete a connection with the target host.

**Table F-5** Section 3: Failed Traffic Options

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_FAILED_INBOUND_TRAFFIC | True (default)<br>False | If this rule is enabled, all failed inbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as inbound if the traffic originated on an external firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall’s interfaces are defined in the Event Collector’s FirewallInformation.ini file. |
| REPORT_FAILED_OUTBOUND_TRAFFIC | True (default)<br>False | If this rule is enabled, all failed outbound traffic through the firewall is reported to the SESA Manager. Traffic is defined as outbound if the traffic originated on an internal firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file. |
| REPORT_FAILED_INTERNAL_TRAFFIC | True (default)<br>False | If this rule is enabled, all failed internal traffic through the firewall is reported to the SESA Manager. Traffic is defined as internal if the traffic originated on an internal firewall interface and is destined for an internal firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file. |
| REPORT_FAILED_EXTERNAL_TRAFFIC | True (default)<br>False | If this rule is enabled, all failed external traffic through the firewall is reported to the SESA Manager. Traffic is defined as external if the traffic originated on an external firewall interface and is destined for an external firewall interface. For this reason, it is critical that the firewall's interfaces are defined in the Event Collector's FirewallInformation.ini file. This activity could indicate that an external host is attempting to use the firewall as a proxy to connect to another external host. |

**Table F-5** Section 3: Failed Traffic Options (Continued)

| Section/Rule | Values | Description |
|---|---|---|
| REPORT_FAILED_UNKNOWN_TRAFFIC | True (default)<br>False | If this rule is enabled, all failed traffic of an unknown direction through the firewall is reported to the SESA Manager. Traffic is defined as unknown if the source interface is not included with the firewall event. |

## Section 4: Remote Management Options

Symantec Security Gateways are configured and managed remotely. In addition, firewall log files are collected by a remote host. The parameters in this section define how the Event Collector processes events related to remote management of the firewall.

**Table F-6** Section 4: Remote Management Options

| Section/Rule | Values | Description |
|---|---|---|
| IGNORE_REMOTE_MANAGEMENT_FROM_AUTH_HOSTS | True<br>False (default) | If this rule is enabled, the Event Collector only reports successful remote management connections if the remote host is not listed as an authorized remote management host in the Event Collector’s FirewallInformation.ini file. If this rule is disabled, all successful remote management connections are reported to the SESA Manager.<br>Please note that this rule applies only to successful remote management connections. Unsuccessful remote management connection attempts are reported regardless of the source of the connection attempt. |

## Section 5: Ping Activity Options

The parameters in this section define how the Event Collector should process ping events.

**Table F-7** Section 5: Ping Activity Options

| Section/Rule | Values | Description |
|---|---|---|
| ROLLUP_INBOUND_PINGS | 3 (default) | This rule defines how ping activity from external hosts should be processed. If set to 0, ping events from external hosts are ignored. If set to 1, every ping event from an external host is reported to the SESA Manager. If set to 2 or greater, the Event Collector rolls up ping activity by source IP address.<br>For example, if ROLLUP_INBOUND_PINGS is set to 5, the Event Collector reports one event for every five ping events from a given source IP address. |
| ROLLUP_OUTBOUND_PINGS | 5 (default) | This rule defines how ping activity from internal hosts should be processed. If set to 0, ping events from internal hosts are ignored. If set to 1, every ping event from an internal host is reported to the SESA Manager. If set to 2 or greater, the Event Collector rolls up ping activity by source IP address.<br>For example, if ROLLUP_OUTBOUND_PINGS is set to 5, the Event Collector reports one event for every five ping events from a given source IP address. |
| ROLLUP_INTERNAL_PINGS | 5 (default) | This rule defines how ping activity between internal hosts should be processed. If set to 0, ping events between internal hosts is ignored. If set to 1, every ping event between internal hosts is reported to the SESA Manager. If set to 2 or greater, the Event Collector rolls up ping activity by source IP address.<br>For example, if ROLLUP_INTERNAL_PINGS is set to 5, the Event Collector reports one event for every five ping events from a given source IP address. |

## Section 6: Port Scan Options

The parameters in this section define how the Event Collector detects and reports port scan activity.

**Table F-8** Section 6: Port Scan Options

| Section/Rule | Values | Description |
|---|---|---|
| DETECT_PORT_SCANS<br>Assign PORT_SCAN_THRESHOLD<br>Assign PORT_SCAN_TIMEOUT | True<br>False (default)<br>5 (default)<br>120 (default) | This rule detects port scans from a single source IP address to a single target IP address. If enabled, an alert is sent to the SESA Manager if a single source IP address attempts to connect to more than PORT_SCAN_THRESHOLD unique ports on a single target IP address within PORT_SCAN_TIMEOUT seconds.<br>Once triggered, individual connect events are not logged for at least the PORT_SCAN_TIMEOUT, as the Event Collector anticipates more. |
| DETECT_PORT_SWEEPS<br>Assign PORT_SWEEP_THRESHOLD<br>Assign PORT_SWEEP_TIMEOUT | True<br>False (default)<br>5 (default)<br>120 (default) | This rule detects port sweeps from a single source IP address to multiple target IP addresses. If enabled, an alert is sent to the SESA Manager if a single source IP address attempts to connect to the same port on more than PORT_SWEEP_THRESHOLD unique hosts within PORT_SWEEP_TIMEOUT seconds.<br>Once triggered, individual connect events are not logged for at least the PORT_SWEEP_TIMEOUT, as the Event Collector anticipates more. |

### Section 7: Authentication options

The parameters in this section define how the Symantec Event Collector detects and reports authentication events.

**Table F-9** Section 7: Authentication Options

| Section/Rule | Values | Description |
|---|---|---|
| ROLLUP_FAILED_LOGINS | 1 (default) | This rule defines how failed login events are processed. If set to 0, failed login events are ignored. If set to 1, every failed login event is reported to the SESA Manager. If set to 2 or greater, the Event Collector "rolls up" failed login events by user name.<br>For example, if ROLLUP_FAILED_LOGINS is set to 5, the Event Collector reports one event for every five failed logon events for a given user name. |

## Modifying SEFLogSensor.ini (optional)

SEFLogSensor.ini file is built dynamically, based on the selections you made while installing Symantec Event Manager for Firewall. It contains parameters that identify the location of the firewall, the source log file on the firewall, the local log file to monitor, and whether you choose to archive log files.

Table F-10 describes all of the parameters and values in the SEFLogSensor.ini file. You may need to make changes to this file for the following operations:

- To configure the Symantec Event Manager for Firewall to run manually, during off-peak hours.
  See "Manually operating Symantec Event Manager for Firewall" on page 450.
- To configure the Symantec Event Manager for Firewall to monitor log files for multiple firewalls.

See the *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide*.

**Table F-10** Description of SEFLogSensor.ini configuration file

| Parameter | Value | Description |
|---|---|---|
| DeviceIP | 1.2.3.4 | IP address of the firewall being monitored. |
| LogPath | c:\raptor\firewall\bin\ (Windows)<br>/usr/raptor/bin (Solaris) | Local directory (with optional drive identifier for Windows) where copies of the log files are stored for this sensor.<br>This is any directory of the user's choice. |
| LogToMonitor | logfile | Primary (initial) local log file name. This is stored in the LogPath directory. |
| NameIsDynamic | True<br>or False (default) | -NA- |
| TranslationFile | ../KnowledgeBase/Firewalls/SEF/SEF.trn | File containing event signatures. |
| SensorType | FirewallLogSensor | Type of sensor being used. Not user-configurable. |

**Table F-10** Description of SEFLogSensor.ini configuration file (Continued)

| Parameter | Value | Description |
|---|---|---|
| MonitorInRealTime | True (Default)<br>or False | Indicates how to process the log file. For normal operations, this must be set to True.<br>When running the Symantec Event Manager for Firewall manually (executed from a batch file), this value must be set to False. When set to False, only the file specified in LogtoMonitor file is processed; remotelogfile does not run.<br>For more information on configuring the Symantec Event Manager for Firewall to run manually,<br>See "Manually operating Symantec Event Manager for Firewall" on page 450. |
| InitialReadPolicy | Beginning (default) | Indicates where to start reading the log file from, beginning to end. |
| EndOfRecordMarker | 0x0A | Character or characters that indicate the end of the event record in the log file. |
| AltLog | logfile1 | File name of the alternate log file when the option to archive log files is disabled. Event records are logged between the two files identified in LogToMonitor and AltLog. |

**Table F-10** Description of SEFLogSensor.ini configuration file (Continued)

| Parameter | Value | Description |
|---|---|---|
| SrcLogPath | logfile | Log file name on the firewall and the file name parameter that is passed to remotelogfile. |
| ArchiveLogs | 0 (default)<br>1 | If set to 1, archiving is enabled. Log files are saved once they have reached a maximum size of 50,000 event records.<br>When set to 0, archiving is disabled. Event records are logged between the two files identified in LogToMonitor and AltLog. |

## Modifying RaptorExpert.ini (optional)

A single RaptorExpert.ini file is built dynamically, based on selections you make while installing Symantec Event Manager for Firewall. It includes a sensor property record that corresponds to the SEFLogSensor.ini file.

Table F-11 describes each parameter in the RaptorExpert.ini file. The default settings for all parameters should suffice for most environments. If however, you need to configure the Symantec Event Manager for Firewall to monitor multiple firewall log files, you must edit the RaptorExpert.ini file to add a sensor entry for each firewall you want to monitor.

Detailed instructions are found in the *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide.*

**Table F-11** Description of RaptorExpert.ini configuration file

| Parameter | Value | Description |
|---|---|---|
| ExpertType | RaptorExpert | Relates to the service type being monitored. |
| ComType | sesa | Indicates we are logging to SESA. |
| DEToSesaMapFile | ../KnowledgeBase/Firewalls/SEF/DEToSesaMap.xml | Indicates the mapping of internal events to SESA events. |
| SesaProductId | 3016 | Product ID to use in events. |

**Table F-11** Description of RaptorExpert.ini configuration file (Continued)

| Parameter | Value | Description |
|---|---|---|
| SesaSwFeatureId | 30160102 | Software feature ID to use in events. |
| SesaProductVersion: | 1.0 | Product version to use in events. |
| BaseRuleFile | ../KnowledgeBase/ Firewalls/SEF/ DE_Baseline.rule | Rule file to process for building operational rules. |
| RuleFile | ../KnowledgeBase/ Firewalls/SEF/SEF.rule | Target rule file into which all rules are compiled. |
| KnowledgeBaseFile | ../KnowledgeBase/ Firewalls/SEF/SEF.kbt | Translations of all device-specific event codes into generic codes. |
| LocatorFilePath | ../Com | Event Collector internal; do not modify. |
| ListeningPort | 0 | Port on which the Event Collector listens in non-SESA environments. |
| BindAddress | 127.0.0.1 | Address the Event Collector uses in non-SESA environments. |
| InactiveSensorReport Interval | 60 | Unused in SESA environments. |
| RemotelogutilPath | /program files/raptor/ firewall/bin/remotelogfile | Path used for running remotelogfile. |
| Sensor | LogSensor<br>ParameterFile:../ KnowledgeBase/Firewalls/ SEF/SEFLogSensor.ini<br>MaxEventsToRead:1000<br>ReportInactivity:FALSE<br>SampleRate:-1 | Sensor configuration indicates the .ini file for the sensor and rate settings the sensor uses for processing its log file. |

# Manually operating Symantec Event Manager for Firewall

When first installed, Symantec Event Manager for Firewall starts as a Service (in windows) or as a Daemon in (Solaris). If it is not practical for you to continuously run the Event Manager, you can disable it and manually execute a batch file to start event logging during a time of your choosing.

To manually run the Event Manager for Firewall, you must:

- Edit sensor log files
- Run batch files

---

**Note:** Before you begin, make sure that the Event Manager for Firewall is not currently running. See the *Symantec Advanced Manager for Security Gateways (Group 1) v2.0.1, Symantec Event Manager for Security Gateways (Group 1) v2.0.1 Integration Guide* for instructions.

---

## Edit sensor log files

You must edit the configuration of the sensor log file, for the Security Gateway whose log file you want to process manually.

Sensor log files are stored in the following locations:

- C:\Program Files\Symantec\FWEventManager\Knowledgebase\Firewalls\SEF (in Windows)
- /opt/Symantec/FWEventManager/KnowledgeBase/Firewalls/SEF/ (in Solaris).

**To edit sensor log files**

1 Open the sensor log files, starting with SEFLogSensor.ini, for the firewall whose log file you want to process manually. Change the following parameter settings to reflect the correct information for the log file to be processed:

| | |
|---|---|
| DeviceIP | Type the IP address of the firewall being monitored. |
| SrcLogPath | Type the name of the log file on the firewall. It is the file name parameter that is passed to remotelogfile. |

| | |
|---|---|
| LogToMonitor | Type the name you chose during installation or enter the name of the log file to be processed. This will be stored in the LogPath directory. |
| MonitorInRealTime | Set to False.<br>When set to False, only the file specified in LogtoMonitor is processed; remotelogfile does not run. |

2 Save and close each sensor log file.

## Run batch files

Batch files are included with the Event Manager installation in the following locations:

- In Windows: c:\Program Files\Symantec\FWEventManager\bin\RaptorExpert-run.bat
- In Solaris: /opt/Symantec/FWEventManager/bin/RaptorExpert-run.sh

### To run batch files

1 Run the batch file by doing the following:

- In Windows, from a command prompt, type the following:

  ```
  c:\Program Files\Symantec\FWEventManager\bin\RaptorExpert
  -run.bat
  ```

- In Solaris, from a terminal window, change to the /opt/Symantec/FWEventManager/bin directory by typing the following command:

  ```
  cd /opt/Symantec/SEFCollector/bin/
  ```

  Execute the batch file by typing the following command:

  ```
  /RaptorExpert-run.sh
  ```

2 The Event Collector starts and processes log files for selected firewalls. When done, exit the program by typing

```
Ctrl + c
```

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